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**WO 01/57272 A2**

# (54) Title: HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR ANALYSIS OF GENE EXPRESSION IN HUMAN PLACENTA

**(57) Abstract:** A single exon nucleic acid microarray comprising a plurality of single exon nucleic acid probes for measuring gene expression in a sample derived from human placenta is described. Also described are single exon nucleic acid probes expressed in the placenta and their use in methods for detecting gene expression.

# HUMAN GENOME-DERIVED SINGLE EXON NUCLEIC ACID PROBES USEFUL FOR ANALYSIS OF GENE EXPRESSION IN HUMAN PLACENTA

## CROSS REFERENCE TO RELATED APPLICATIONS

The present application is a continuation-in-part of U.S. patent application serial nos. 09/632,366, filed August 3, 2000 and 09/608,408, filed June 30, 2000; claims the benefit under 35 U.S.C. s 119(e) of U.S.provisional patent application serial nos. 60/236,359, filed September 27, 2000, 60/234,687, filed September 21, 2000, 60/207,456, filed May 26, 2000, and 60/180,312, filed February 4, 2000; and further claims the benefit under 35 U.S.C. s 119(a) of UK patent application no. 0024263.6, filed October 4, 2000, the disclosures of which are incorporated herein by reference in their entireties.

## REFERENCE TO SEQUENCE LISTING AND INCORPORATION BY REFERENCE THEREOF

The present application includes a Sequence Listing in electronic format, filed pursuant to PCT Administrative Instructions 801 - 806 on a single CD-R disc, in triplicate, containing a file pto_PLACENTA.txt, created 24 January 2001, having 26,548,337 bytes. The Sequence Listing contained in said file on said disc is incorporated herein by reference in its entirety.

## Field of the Invention

The present invention relates to genome-derived single exon microarrays useful for verifying the expression of regions of genomic DNA predicted to encode protein. In particular, the present invention relates to unique genome-derived single exon nucleic acid probes expressed in human placenta and single exon nucleic acid microarrays that include such probes.

## Background of the Invention

For almost two decades following the invention of general techniques for nucleic acid sequencing, Sanger *et al.*, *Proc. Natl. Acad. Sci. USA* 70(4):1209-13 (1973); Gilbert *et al.*, *Proc. Natl. Acad. Sci. USA* 70(12):3581-4 (1973), these techniques were used principally as tools to further the understanding of proteins — known or suspected — about which a basic foundation of biological knowledge had already been built. In many cases, the cloning effort that preceded sequence identification had been both informed and directed by that antecedent biological understanding.

For example, the cloning of the T cell receptor for antigen was predicated upon its known or suspected cell type-specific expression, by its suspected membrane association, and by the predicted assembly of its gene via T cell-specific somatic recombination. Subsequent sequencing efforts at once confirmed and extended understanding of this family of proteins. Hedrick *et al.*, *Nature* 308(5955):153-8 (1984).

More recently, however, the development of high throughput sequencing methods and devices, in concert with large public and private undertakings to sequence the human and other genomes, has altered this investigational paradigm: today, sequence information often precedes understanding of the basic biology of the encoded protein product.

One of the approaches to large-scale sequencing is predicated upon the proposition that expressed sequences — that is, those accessible through isolation of mRNA — are of greatest initial interest. This "expressed sequence tag" ("EST") approach has already yielded vast amounts of sequence data (see for example Adams *et al.*, *Science* 252:1651 (1991); Williamson, *Drug Discov. Today* 4:115 (1999)). For nucleic acids sequenced by this approach, often the only biological information that is known *a priori* with any certainty is the likelihood of biologic expression itself. By virtue of the species and tissue from which the mRNA had originally been obtained, most such sequences are also annotated with the identity of the species and at least one tissue in which expression appears likely.

More recently, the pace of genomic sequencing has accelerated dramatically. When genomic DNA serves as the initial substrate for sequencing efforts, expression cannot be presumed; often the only *a priori* biological information about the sequence includes the species and chromosome (and perhaps chromosomal map location) of origin.

With the ever-accelerating pace of sequence accumulation by directed, EST, and genomic sequencing approaches – and in particular, with the accumulation of sequence information from multiple genera, from multiple species within genera, and from multiple individuals within a species – there is an increasing need for methods that rapidly and effectively permit the functions of nucleic sequences to be elucidated. And as such functional information accumulates, there is a further need for methods of storing such functional information in meaningful and useful relationship to the sequence itself; that is, there is an increasing need for means and apparatus for annotating raw sequence data with known or predicted functional information.

Although the increase in the pace of genomic sequencing is due in large part to technological changes in sequencing strategies and instrumentation, Service, *Science* 280:995 (1998); Pennisi, *Science* 283: 1822-1823 (1999), there is an important functional motivation as well.

While it was understood that the EST approach would rarely be able to yield sequence information about the noncoding portions of the genome, it now also appears the EST approach is capable of capturing only a fraction of a genome's actual expression complexity.

For example, when the *C. elegans* genome was fully sequenced, gene prediction algorithms identified over 19,000 potential genes, of which only 7,000 had been found by EST sequencing. *C. elegans* Sequencing Consortium, *Science* 282:2012 (1998). Analogously, the recently completed sequence of chromosome 2 of *Arabidopsis* predicts over 4000 genes, Lin *et al.*, *Nature*, 402:761 (1999), of which only about 6% had previously been identified via EST sequencing efforts. Although the human genome has the greatest depth of EST coverage, it is still woefully short of surrendering all of its genes. One recent estimate suggests that the human genome contains more than 146,000 genes, which would at this point leave greater than half of the genes undiscovered. It is now predicted that many genes, perhaps 20 to 50%, will only be found by genomic sequencing.

There is, therefore, a need for methods that permit the functional regions of genomic sequence – and most importantly, but not exclusively, regions that function to encode genes – to be identified.

Much of the coding sequence of the human genome is not homologous to known genes, making detection of open reading frames ("ORFs") and predictions of gene function difficult. Computational methods exist for predicting coding regions in eukaryotic genomes. Gene prediction programs such as GRAIL and GRAIL II, Uberbacher *et al.*, *Proc. Natl. Acad. Sci. USA* 88(24):11261-5 (1991); Xu *et al.*, *Genet. Eng.* 16:241-53 (1994); Uberbacher *et al.*, *Methods Enzymol.* 266:259-81 (1996); GENEFINDER, Solovyev *et al.*, *Nucl. Acids. Res.* 22:5156-63 (1994); Solovyev *et al.*, *Ismb* 5:294-302 (1997); and GENESCAN, Burge *et al.*, *J. Mol. Biol.* 268:78-94 (1997), predict many putative genes without known homology or function. Such programs are known, however, to give high false positive rates. Burset *et al.*, *Genomics* 34:353-367 (1996). Using a consensus obtained by a plurality of such programs is known to increase the reliability of calling exons from genomic sequence. Ansari-Lari *et al.*, *Genome Res.* 8(1):29-40 (1998)

Identification of functional genes from genomic data remains, however, an imperfect art. For example, in reporting the full sequence of human chromosome 21, the Chromosome 21 Mapping and Sequencing Consortium reports that prior bioinformatic estimates of human gene number may need to be revised substantially downwards. *Nature* 405:311-199 (2000); Reeves, *Nature* 405:283-284 (2000).

Thus, there is a need for methods and apparatus that permit the functions of the regions identified bioinformatically – and specifically, that permit the expression of regions predicted to encode protein – readily to be confirmed experimentally.

Recently, the development of nucleic acid microarrays has made possible the automated and highly parallel measurement of gene expression. *Reviewed in* Schena (ed.), DNA Microarrays : A Practical Approach (Practical Approach Series), Oxford University Press (1999) (ISBN: 0199637768); *Nature Genet.* 21(1)(suppl):1 - 60 (1999); Schena (ed.), Microarray Biochip: Tools and Technology, Eaton Publishing Company/BioTechniques Books Division (2000) (ISBN: 1881299376).

It is common for microarrays to be derived from cDNA/EST libraries, either from those previously described in the literature, such as those from the I.M.A.G.E. consortium, Lennon *et al.*, *Genomics* 33(1):151-2 (1996), or from the construction of "problem specific" libraries targeted at a particular biological question, R.S. Thomas *et al.*, *Cancer Res.* (in press). Such microarrays by definition can measure expression only of those genes found in EST libraries, and thus have not been useful as probes for genes discovered solely by genomic sequencing.

The utility of using whole genome nucleic acid microarrays to answer certain biological questions has been demonstrated for the yeast *Saccharomyces cerevisiae*. De Risi *et al.*, *Science* 278:680 (1997). The vast majority of yeast nuclear genes, approximately 95% however, are single exon genes, *i.e.*, lack introns, Lopez *et al.*, *RNA* 5:1135-1137 (1999); Goffeau *et al.*, *Science* 274:563-67 (1996), permitting coding regions more readily to be identified. Whole genome nucleic acid microarrays have not generally been used to probe gene expression from more complex eukaryotic genomes, and in particular from those averaging more than one intron per gene.

Given the substantial impact on human morbidity and mortality of diseases directly caused by genetic defect, and given the profound influence of genetic factors on the predisposition, onset, and/or aggressiveness of most, if not all human diseases, there has long been interest in efficient and safe means for early detection of gene defects and polymorphisms that cause, are associated with, or are implicated in development of disease.

Recently, techniques have been developed that permit direct sampling of placenta earlier in pregnancy. There is a need for methods and apparatus that permit analysis of placenta samples for the prediction and diagnosis of diseases caused by genetic defect, particularly those with polygenic etiology.

## Summary of the Invention

The present invention solves these and other problems in the art by providing methods and apparatus for predicting, confirming, and displaying functional information derived from genomic sequence. The present invention also provides apparatus for verifying the expression of putative genes identified within genomic sequence.

In particular, the invention provides novel genome-derived single exon nucleic acid microarrays useful for verifying the expression of putative genes identified within genomic sequence.

The present invention also provides compositions and kits for the ready production of nucleic acids identical in sequence to, or substantially identical in sequence to, probes on the genome-derived single exon microarrays of the present invention.

Accordingly, in a first aspect of the invention, there is provided a spatially-addressable set of single exon nucleic acid probes for measuring gene expression in a sample derived from human placenta, comprising a plurality of single exon nucleic acid probes according to any one of the nucleotide sequences set out in SEQ ID NOs: 1 - 13,232 or a complementary sequence, or a portion of such a sequence.

By plurality is meant at least two, suitably at least 20, most suitably at least 100, preferably at least 1000 and, most preferably, upto 5000.

In one embodiment of the first aspect, each of said plurality of probes is separately and addressably amplifiable.

In an alternative embodiment, each of said plurality of probes is separately and addressably isolatable from said plurality.

In a preferred embodiment, each of said plurality of probes is amplifiable using at least one common primer. Preferably, each of said plurality of probes is amplifiable using a first and a second common primer.

In yet another embodiment, said set of single exon nucleic acid probes comprises between 50 - 20,000 probes, for example, 50 - 5000.

Suitably, said set of single exon nucleic acid probes comprises at least 50 - 1000 discrete single exon nucleic acid probes having a sequence as set out in any of SEQ ID NOS.: 1 - 26,232 or a complimentary sequence, or a portion of such a sequence.

Preferably, the average length of the single exon nucleic acid probes is between 200 and 500 bp. It is preferred that the average length should be at least 200bp, suitably at least 250bp, most suitably at least 300bp, preferably at least 400bp and, most preferably, 500 bp.

In another embodiment, the single exon nucleic acid probes lack prokaryotic and bacteriophage vector sequence. It is preferred that at least 50%, suitably at least 60%, most suitably at least 70%, preferably at least 75%, more preferably at least 80, 85, 90, 95 or 99% of said single exon nucleic acid probes lack prokaryotic and bacteriophage vector sequence.

In another preferred embodiment, said single exon nucleic acid lack homopolymeric stretches of A or T. It is preferred that at least 50%, suitably at least 60%, most suitably at least 70%, preferably at least 75%, more preferably at least 80, 85, 90, 95 or 99% of said single exon nucleic acid probes lack homopolymeric stretches of A or T.

Preferably, a spatially-addressable set of single exon nucleic acid probes in accordance with the first aspect of the invention is is addressably disposed upon a substrate.

Suitable substrates include a filter membrane which may, preferably, be nitrocellulose or nylon. The nylon may preferably, be positively-charged. Other suitable substrates include glass, amorphous silicon, crystalline silicon, and plastic. Further suitable materials include polymethylacrylic, polyethylene, polypropylene, polyacrylate, polymethylmethacrylate, polyvinylchloride, polytetrafluoroethylene, polystyrene, polycarbonate, polyacetal, polysulfone, celluloseacetate, cellulosenitrate, nitrocellulose, and mixtures thereof.

In a second aspect of the invention, there is provided a microarray comprising a spatially addressable set of single exon nucleic acid probes in accordance with the first aspect of the invention.

In one embodiment, a genome-derived single-exon microarray is packaged together with such an ordered set of amplifiable probes corresponding to the probes, or one or more subsets of probes, thereon. In alternative embodiments, the ordered set of amplifiable probes is packaged separately from the genome-derived single exon microarray.

In another aspect, the invention provides genome-derived single exon nucleic acid probes useful for gene expression analysis, and particularly for gene expression analysis by microarray. In particular embodiments of this aspect, the present invention provides human single-exon probes that include specifically-hybridizable fragments of SEQ ID Nos. 13,233 - 26,232, wherein the fragment hybridizes at high stringency to an expressed human gene. In particular embodiments, the invention provides single exon probes comprising SEQ ID Nos. 1 - 13,232.

Accordingly, in a third aspect of the invention, there is provided a single exon nucleic acid probe for measuring human gene expression in a sample derived from human placenta which is a nucleic acid molecule comprising a nucleotide sequence as set out in any of SEQ ID NOs.: 1 - 13,232 or a complementary sequence or a fragment thereof wherein said probe hybridizes at high stringency to a nucleic acid expressed in the human placenta.

In one embodiment, a single exon nucleic acid probe in accordance with the third aspect comprises a nucleotide sequence as set out in any of SEQ ID NOs.: 13,233 - 26,232 or a complementary sequence or a fragment thereof.

In a fourth aspect of the invention, there is provided a single exon nucleic acid probe for measuring human gene expression in a sample derived from human placenta which is a nucleic acid molecule having a sequence encoding a peptide comprising a peptide sequence as set out in any of SEQ ID NOs.: 26,233 - 38,837 or a complementary sequence or a fragment thereof wherein said probe hybridizes at high stringency to a nucleic acid expressed in the human placenta.

Preferably, a single exon nucleic acid probe in accordance with the third or fourth aspects of the invention comprises between at least 15 and 50 contiguous nucleotides of said SEQ ID NO:. It is preferred that the single exon nucleic acid probe comprises at least 15, suitably at least 20, more suitably at least 25 or preferably at least 50 contiguous nucleotides of said SEQ ID NO:.

In another preferred embodiment, a single exon nucleic acid probe in accordance with the third or fourth aspects of the invention is between 3kb and 25kb in length. It is preferred that said probe is no more than 3kb, suitably no more than 5kb, more suitably no more than 10kb, preferably 15kb, more preferably 20kb or, most preferably, no more than 20kb in length.

Preferably, a single exon nucleic acid probe in accordance with either the fifth or sixth aspect of the invention is DNA, preferably single-stranded DNA, RNA or PNA.

In another embodiment of either the third or fourth aspect of the invention, a single exon nucleic acid probe is detectably labeled. Suitable detectable labels include a radionuclide, a fluorescent label or a first member of a specific binding pair. Suitable fluorescent labels include dyes such as cyanine dyes, preferably Cy3 and Cy5 although other suitable dyes will be known to those skilled in the art.

In a particularly preferred embodiment, a single exon nucleic acid probe in accordance with either the third or fourth aspect of the invention lacks prokaryotic and bacteriophage vector sequence. In yet another embodiment, a single exon nucleic acid probe in accordance with either the third or fourth aspect of the invention lacks homopolymeric stretches of A or T.

In a fifth aspect of the invention, there is provided an amplifiable nucleic acid composition, comprising:

the single exon nucleic acid probe in accordance with either of the third or fourth aspects of the invention; and at least one nucleic acid primer;

wherein said at least one primer is sufficient to prime enzymatic amplification of said probe.

In an sixth aspect of the invention, there is provided a method of measuring gene expression in a sample derived from human placenta, comprising:

contacting the single exon microarray in accordance with the second aspect of the invention, with a first collection of detectably labeled nucleic acids, said first collection of nucleic acids derived from mRNA of human placenta; and then

measuring the label detectably bound to each probe of said microarray.

In a seventh aspect of the invention, there is provided a method of identifying exons in a eukaryotic genome, comprising:

algorithmically predicting at least one exon from genomic sequence of said eukaryote; and then

detecting specific hybridization of detectably labeled nucleic acids to a single exon probe,

wherein said detectably labeled nucleic acids are derived from mRNA from the placenta of said eukaryote, said probe is a single exon probe having a fragment identical in sequence to, or complementary in sequence to, said predicted exon, said probe is included within a single exon microarray in accordance with the first aspect of the invention, and said fragment is selectively hybridizable at high stringency.

In a eighth aspect of the invention, there is provided a method of assigning exons to a single gene, comprising:

identifying a plurality of exons from genomic sequence in accordance with the seventh aspect of the invention; and then

measuring the expression of each of said exons in a plurality of tissues and/or cell types using hybridization to single exon microarrays having a probe with said exon,

wherein a common pattern of expression of said exons in said plurality of tissues and/or cell types indicates that the exons should be assigned to a single gene.

In an ninth aspect of the invention, there is provided a nucleic acid sequence as set out in any of SEQ ID NOs: 1 - 26,232 wherein said sequence encodes a peptide.

In a tenth aspect of the invention, there is provided a peptide encoded by a sequence comprising a sequence as set out in any of SEQ ID NOs: 13,233 - 26,232, or a complementary sequence or coding portion thereof.

In a preferred embodiment, a peptide may be encoded by a sequence comprising a sequence set out in any of SEQ ID NOS.: 1 -13,232 .

In a further aspect, the invention provides peptides comprising an amino acid sequence translated from the DNA fragments, said amino acid sequences comprising SEQ ID NOS.: 26,233 - 38,837.

Accordingly in a eleventh aspect of the invention there is provided a peptide comprising a sequence as set out in any of SEQ ID NOs: 26,233 - 38,837, or fragment thereof.

In another aspect, the invention provides means for displaying annotated sequence, and in particular, for displaying sequence annotated according to the methods and apparatus of the present invention. Further, such display can be used as a preferred graphical user interface for electronic search, query, and analysis of such annotated sequence.

## Detailed Description of the Invention

### Definitions

As used herein, the term "microarray" and phrase "nucleic acid microarray" refer to a substrate-bound collection of plural nucleic acids, hybridization to each of the plurality of bound nucleic acids being separately detectable. The substrate can be solid or porous, planar or non-planar, unitary or distributed.

As so defined, the term "microarray" and phrase "nucleic acid microarray" include all the devices so called in Schena (ed.), DNA Microarrays: A Practical Approach (Practical Approach Series), Oxford University Press (1999) (ISBN: 0199637768); *Nature Genet.* 21(1)(suppl):1 - 60 (1999); and Schena (ed.), Microarray Biochip: Tools and Technology, Eaton Publishing Company/BioTechniques Books Division (2000) (ISBN: 1881299376). As so defined, the term "microarray" and phrase "nucleic acid microarray" further include substrate-bound collections of plural nucleic acids in which the nucleic acids are distributably disposed on a plurality of beads, rather than on a unitary planar substrate, as is described, *inter alia*, in Brenner *et al.*, *Proc. Natl. Acad. Sci. USA* 97(4):166501670 (2000); in such case, the term "microarray" and phrase "nucleic acid microarray" refer to the plurality of beads in aggregate.

As used herein with respect to a nucleic acid microarray, the term "probe" refers to the nucleic acid that is, or is intended to be, bound to the substrate; in such context, the term "target" thus refers to nucleic acid intended to be bound thereto by Watson-Crick complementarity. As used herein with respect to solution phase hybridization, the term "probe" refers to the nucleic acid of known sequence that is detectably labeled.

As used herein, the expression "probe comprising SEQ ID NO.", and variants thereof, intends a nucleic acid probe, at least a portion of which probe has either (i) the sequence directly as given in the referenced SEQ ID NO., or (ii) a sequence complementary to the sequence as given in the referenced SEQ ID NO., the choice as between sequence directly as given and complement thereof dictated by the requirement that the probe hybridize to mRNA.

As used herein, the term "open reading frame" and the equivalent acronym "ORF" refer to that portion of an exon that can be translated in its entirety into a sequence of contiguous amino acids i.e. a nucleic acid sequence that, in at least one reading frame, does not possess stop codons; the term does not require that the ORF encode the entirety of a natural protein.

As used herein, the term "amplicon" refers to a PCR product amplified from human genomic DNA, containing the predicted exon.

As used herein the term "exon" refers to the consensus prediction of the various exon and gene predicting algorithms i.e. a nucleic acid sequence bioinformatically predicted to encode a portion of a natural protein.

As used herein, the term "peptide" refers to a sequence of amino acids. The sequences referred to as PEPTIDE SEQ ID NOS.: are the predicted peptide sequences that would be translated from one of the exons, or a portion thereof set out in exon SEQ ID NOS.:. The codons encoding the peptide are wholly contained within the exon.

As used herein, a "portions" of a defined nucleotide sequence or sequences can be and, preferably, are fragments unique to that sequence or to one or a combination of those sequences. A fragment unique to a nucleic acid molecule is one that is a signature for the larger nucleic acid molecule.

As used herein, the phrase "expression of a probe" and its linguistic variants means that the ORF present within the probe, or its complement, is present within a target mRNA.

As used herein, "stringent conditions" refers to parameters well known to those skilled in the art. When a nucleic acid molecule is said to be hybridisable to another of a given sequence under "stringent conditions" it is meant that it is homologous to the given sequence.

As used herein, the phrase "specific binding pair" intends a pair of molecules that bind to one another with high specificity. Binding pairs are said to exhibit specific binding when they exhibit avidity of at least $10^7$, preferably at least $10^8$, more preferably at least $10^9$ liters/mole. Nonlimiting examples of specific binding pairs are: antibody and antigen; biotin and avidin; and biotin and streptavidin.

As used herein with respect to the visual display of annotated genomic sequence, the term "rectangle" means any geometric shape that has at least a first and a second border, wherein the first and second borders each are capable of mapping uniquely to a point of another visual object of the display.

As used herein, a "Mondrian" means a visual display in which a single genomic sequence is annotated with predicted and experimentally confirmed functional information.

## Brief Description of the Drawings

The present invention is further illustrated with reference to the following non-limiting figures and examples in which:

FIG. 1 illustrates a process for predicting functional regions from genomic sequence, confirming the functional activity of such regions experimentally, and associating and displaying the data so obtained in meaningful and useful relationship to the original sequence data;

FIG. 2 further elaborates that portion of the process schematized in FIG. 1 for predicting functional regions from genomic sequence;

FIG. 3 illustrates a Mondrian visual display;

FIG. 4 presents a Mondrian showing a hypothetical annotated genomic sequence;

FIG. 5 is a histogram showing the distribution of ORF length and PCR products as obtained, with ORF length shown in black and PCR product length shown in dotted lines;

FIG. 6 is a histogram showing the distribution, among exons predicted according to the methods described, of expression as measured using simultaneous two color hybridization to a genome-derived single exon microarray. The graph shows the number of sequence-verified products that were either not expressed ("0"), expressed in one or more but not all tested tissues ("1" - "9"), or expressed in all tissues tested ("10");

FIG. 7 is a pictorial representation of the expression of verified sequences that showed expression with signal intensity greater than 3 in at least one tissue, with: FIG. 7A showing the expression as measured by microarray hybridization in each of the 10 measured tissues, and the expression as measured "bioinformatically" by query of EST, NR and SwissProt databases; with FIG. 7B showing the legend for display of physical expression (ratio) in FIG. 7A; and with FIG. 7C showing the legend for scoring EST hits as depicted in FIG. 7A;

FIG. 8 shows a comparison of normalized CY3 signal intensity for arrayed sequences that were identical to sequences in existing EST, NR and SwissProt databases or that were dissimilar (unknown), where black denotes the signal intensity for all sequence-verified products with a BLAST Expect ("E") value of greater than 1e-30 ($1 \times 10^{-30}$) ("unknown") and a dotted line denotes sequence-verified spots with a BLAST expect ("E") value of less than 1e-30 ($1 \times 10^{-30}$) ("known");

FIG. 9 presents a Mondrian of BAC AC008172 (bases 25,000 to 130,000), containing the carbamyl phosphate synthetase gene (AF154830.1); and

FIG. 10 is a Mondrian of BAC A049839.

## Methods and Apparatus for Predicting, Confirming, Annotating, and Displaying Functional Regions From Genomic Sequence Data

FIG. 1 is a flow chart illustrating in broad outline a process for predicting functional regions from genomic sequence, confirming and characterizing the functional activity of such regions experimentally, and then associating and displaying the information so obtained in meaningful and useful relationship to the original sequence data.

The initial input into process 10 of the present invention is drawn from one or more databases 100 containing genomic sequence data. Because genomic sequence is usually obtained from subgenomic fragments, the sequence data typically will be stored in a series of records corresponding to these subgenomic sequenced fragments. Some fragments will have been catenated to form larger contiguous sequences ("contigs"); others will not. A finite percentage of sequence data in the database will typically be erroneous, consisting *inter alia* of vector sequence, sequence created from aberrant cloning events, sequence of artificial polylinkers, and sequence that was erroneously read.

Each sequence record in database 100 will minimally contain as annotation a unique sequence identifier (accession number), and will typically be annotated further to identify the date of accession, species of origin, and depositor. Because database 100 can contain nongenomic sequence, each sequence will typically be annotated further to permit query for genomic sequence. Chromosomal origin, optionally with map location, can also be present. Data can be, and over time increasingly will be, further annotated with additional information, in part through use of the present invention, as described below. Annotation can be present within the data records, in information external to database 100 and linked to the records thereto, or through a combination of the two.

Databases useful as genomic sequence database 100 in the present invention include GenBank, and particularly include several divisions thereof, including the htgs(draft), NT (nucleotide, command line), and NR (nonredundant) divisions. GenBank is produced by the National Institutes of Health and is maintained by the National Center for Biotechnology Information (NCBI). Databases of genomic sequence from species other than human, such as mouse, rat, Arabidopsis, *C. elegans*, *C. brigsii*, *Drosophila*, zebra fish, and other higher eukaryotic organisms will also prove useful as genomic sequence database 100.

Genomic sequence obtained by query of genomic sequence database 100 is then input into one or more processes 200 for identification of regions therein that are predicted to have a biological function as specified by the user. Such functions include, but are not limited to, encoding protein, regulating transcription, regulating message transport after transcription into mRNA, regulating message splicing after transcription into mRNA, of regulating message degradation after transcription into mRNA, and the like. Other functions include directing somatic recombination events, contributing to chromosomal stability or movement, contributing to allelic exclusion or X chromosome inactivation, and the like.

The particular genomic sequence to be input into process 200 will depend upon the function for which relevant sequence is to be identified as well as upon the approach chosen for such identification. Process step 200 can be iterated to identify different functions within a given genomic region. In such case, the input often will be different for the several iterations.

Sequences predicted to have the requisite function by process 200 are then input into process 300, where a subset of the input sequences suitable for experimental confirmation is identified. Experimental confirmation can involve physical and/or bioinformatic assay. Where the subsequent experimental assay is bioinformatic, rather than physical, there are fewer constraints on the sequences that can be tested, and in this latter case therefore process 300 can output the entirety of the input sequence.

The subset of sequences output from process 300 is then used in process 400 for experimental verification and characterization of the function predicted in process 200, which experimental verification can, and often will, include both physical and bioinformatic assay.

Process 500 annotates the sequence data with the functional information obtained in the physical and/or bioinformatic assays of process 400. Such annotation can be done using any technique that usefully relates the functional information to the sequence, as, for example, by incorporating the functional data into the sequence data record itself, by linking records in a hierarchical or relational database, by linking to external databases, by a combination thereof, or by other means well known within the database arts. The data can even be submitted for incorporation into databases maintained by others, such as GenBank, which is maintained by NCBI.

As further noted in FIG. 1, additional annotation can be input into process 500 from external sources 600.

The annotated data is then displayed in process 800, either before, concomitantly with, or after optional storage 700 on nontransient media, such as magnetic disk, optical disc, magnetooptical disk, flash memory, or the like.

FIG. 1 shows that the experimental data output from process 400 can be used in each preceding step of process 10: e.g., facilitating identification of functional sequences in process 200, facilitating identification of an experimentally suitable subset thereof in process 300, and facilitating creation of physical and/or informational substrates for, and performance of subsequent assay, of functional sequences in process 400.

Information from each step can be passed directly to the succeeding process, or stored in permanent or interim form prior to passage to the succeeding process. Often, data will be stored after each, or at least a plurality, of such process steps. Any or all process steps can be automated.

FIG. 2 further elaborates the prediction of functional sequence within genomic sequence according to process 200.

Genomic sequence database 100 is first queried 20 for genomic sequence.

The sequence required to be returned by query 20 will depend, in the first instance, upon the function to be identified.

For example, genomic sequences that function to encode protein can be identified *inter alia* using gene prediction approaches, comparative sequence analysis approaches, or combinations of the two. In gene prediction analysis, sequence from one genome is input into process 200 where at least one, preferably a plurality, of algorithmic methods are applied to identify putative coding regions. In comparative sequence analysis, by contrast, corresponding, *e.g.*, syntenic, sequence from a plurality of sources, typically a plurality of species, is input into process 200, where at least one, possibly a plurality, of algorithmic methods are applied to compare the sequences and identify regions of least variability.

The exact content of query 20 will also depend upon the database queried. For example, if the database contains both genomic and nongenomic sequence, perhaps derived from multiple species, and the function to be determined is protein coding regions in human genomic sequence, the query will accordingly require that the sequence returned be genomic and derived from humans.

Query 20 can also incorporate criteria that compel return of sequence that meets operative requirements of the subsequent analytical method. Alternatively, or in addition, such operative criteria can be enforced in subsequent preprocess step 24.

For example, if the function sought to be identified is protein coding, query 20 can incorporate criteria that return from genomic sequence database 100 only those sequences present within contigs sufficiently long as to have obviated substantial fragmentation of any given exon among a plurality of separate sequence fragments.

Such criteria can, for example, consist of a required minimal individual genomic sequence fragment length, such as 10 kb, more typically 20 kb, 30 kb, 40kb, and preferably 50 kb or more, as well as an optional further or alternative requirement that sequence from any given clone, such as a bacterial artificial chromosome ("BAC"), be presented in no more than a finite maximal number of fragments, such as no more than 20 separate pieces, more typically no more than 15 fragments, even more typically no more than about 10 - 12 fragments.

Results using the present invention have shown that genomic sequence from bacterial artificial chromosomes (BACs) is sufficient for gene prediction analysis according to the present invention if the sequence is at least 50 kb in length, and if additionally the sequence from any given BAC is presented in fewer than 15, and preferably fewer than 10, fragments. Accordingly, query 20 can incorporate a requirement that data accessioned from BAC sequencing be in fewer than 15, preferably fewer than 10, fragments.

An additional criterion that can be incorporated into the query can be the date, or range of dates, of sequence accession. Although the process has been described above as if genomic sequence database 100 were static, it is of course understood that the genomic sequence databases need not be static, and indeed are typically updated on a frequent, even hourly, basis. Thus, as further described in Examples 1 and 2, *infra*, it is possible to query the database for newly added sequence, either newly added after an absolute date, or newly added relative to a prior analysis performed using the methods and apparatus of the present invention. In this way, the process herein described can incorporate a dynamic, temporal component.

One utility of such temporal limitation is to identify, from newly accessioned genomic sequence, the presence of novel genes, particularly those not previously identified by EST sequencing (or other sequencing efforts that are similarly based upon gene expression). As further described in Example 1, such an approach has shown that newly accessioned human genomic sequence, when analyzed for sequences that function to encode protein, readily identifies genes that are novel over those in existing EST and other expression databases. This makes the methods of the present invention extremely powerful gene discovery tools. And as would be appreciated, such gene discovery can be performed using genomic sequence from species other than human.

If query 20 incorporates multiple criteria, such as above-described, the multiple criteria can be performed as a series of separate queries or as a single query, depending in part upon the query language, the complexity of the query, and other considerations well known in the database arts.

If query 20 returns no genomic sequence meeting the query criteria, the negative result can be reported by process 22, and process 200 (and indeed, entire process 10) ended 23, as shown. Alternatively, or in addition to report and termination of the initial inquiry, a new query 20 can be generated that takes into account the initial negative result.

When query 20 returns sequence meeting the query criteria, the returned sequence is then passed to optional preprocessing 24, suitable and specific for the desired analytical approach and the particular analytical methods thereof to be used in process 25.

Preprocessing 24 can include processes suitable for many approaches and methods thereof, as well as processes specifically suited for the intended subsequent analysis.

Preprocessing 24 suitable for most approaches and methods will include elimination of sequence irrelevant to, or that would interfere with, the subsequent analysis. Such sequence includes repetitive sequence, such as Alu repeats and LINE elements, vector sequence, artificial sequence, such as artificial polylinkers, and the like. Such removal can readily be performed by identification and subsequent masking of the undesired sequence.

Identification can be effected by comparing the genomic sequence returned by query 20 with public or private databases containing known repetitive sequence, vector sequence, artificial sequence, and other artifactual sequence. Such comparison can readily be done using programs well known in the art, such as CROSS_MATCH, or by proprietary sequence comparison programs the engineering of which is well within the skill in the art.

Alternatively, or in addition, undesirable, including artifactual, sequence can be identified algorithmically without comparison to external databases and thereafter removed. For example, synthetic polylinker sequence can be identified by an algorithm that identifies a significantly higher than average density of known restriction sites. As another example, vector sequence can be identified by algorithms that identify nucleotide or codon usage at variance with that of the bulk of the genomic sequence.

Once identified, undesired sequence can be removed. Removal can usefully be done by masking the undesired sequence as, for example, by converting the specific nucleotide references to one that is unrecognized by the subsequent bioinformatic algorithms, such as "X". Alternatively, but at present less preferred, the undesired sequence can be excised from the returned genomic sequence, leaving gaps.

Preprocessing 24 can further include selection from among duplicative sequences of that one sequence of highest quality. Higher quality can be measured as a lower percentage of, fewest number of, or least densely clustered occurrence of ambiguous nucleotides, defined as those nucleotides that are identified in the genomic sequence using symbols indicating ambiguity. Higher quality can also or alternatively be valued by presence in the longest contig.

Preprocessing 24 can, and often will, also include formatting of the data as specifically appropriate for passage to the analytical algorithms of process 25. Such formatting can and typically will include, *inter alia*, addition of a unique sequence identifier, either derived from the original accession number in genomic sequence database 100, or newly applied, and can further include additional annotation. Formatting can include conversion from one to another sequence listing standard, such as conversion to or from FASTA or the like, depending upon the input expected by the subsequent process.

Preprocessing, which can be optional depending upon the function desired to be identified and the informational requirements of the methods for effecting such identification, is followed by sequence processing 25, where sequences with the desired function are identified within the genomic sequence.

As mentioned above, such functions can include, but are not limited to, encoding protein, regulating transcription, regulating message transport after transcription into mRNA, regulating message splicing after transcription, of regulating message degradation, and the like. Other functions include directing somatic recombination events, contributing to chromosomal stability or movement, contributing to allelic exclusion or X chromosome inactivation, or the like.

The methods of the present invention are particularly useful for gene discovery, that is, for identifying, from genomic sequence, regions that function to encode genes, and in a particularly useful embodiment, for identifying regions that function to encode genes not hitherto identified by expression-based or directed cloning and sequencing. In conjunction with verification using the novel single exon microarrays of the present invention, as further described below, the methods herein described become powerful gene discovery tools.

Accordingly, in a preferred embodiment of the present invention, process 25 is used to identify putative coding regions. Two preferred approaches in process 25 for identifying sequence that encodes putative genes are gene prediction and comparative sequence analysis.

Gene prediction can be performed using any of a number of algorithmic methods, embodied in one or more software programs, that identify open reading frames (ORFs) using a variety of heuristics, such as GRAIL, DICTION, and GENEFINDER. Comparative sequence analysis similarly can be performed using any of a variety of known programs that identify regions with lower sequence variability.

As further described in Example 1, below, gene finding software programs yield a range of results. For the newly accessioned human genomic sequence input in Example 1, for example, GRAIL identified the greatest percentage of genomic sequence as putative coding region, 2% of the data analyzed; GENEFINDER was second, calling 1%; and DICTION yielded the least putative coding region, with 0.8% of genomic sequence called as coding region.

Increased reliability can be obtained when consensus is required among several such methods. Although discussed herein particularly with respect to exon calling, consensus among methods will in general increase reliability of predicting other functions as well.

Thus, as indicated by query 26, sequence processing 25, optionally with preprocessing 24, can be repeated with a different method, with consensus among such iterations determined and reported in process 27.

Process 27 compares the several outputs for a given input genomic sequence and identifies consensus among the separately reported results. The consensus itself, as well as the sequence meeting that consensus, is then stored in process 29a, displayed in process 29b, and/or output to process 300 for subsequent identification of a subset thereof suitable for assay.

Multiple levels of consensus can be calculated and reported by process 27. For example, as further described in Example 1, *infra*, process 27 can report consensus as between all specific pairs of methods of gene prediction, as consensus among any one or more of the pairs of methods of gene prediction, or as among all of the gene prediction algorithms used. Thus, in Example 1, process 27 reported that GRAIL and GENEFINDER programs agreed on 0.7% of genomic sequence, that GRAIL and DICTION agreed on 0.5% of genomic sequence, and that the three programs together agreed on 0.25% of the data analyzed. Put another way, 0.25% of the genomic sequence was identified by all three of the programs as containing putative coding region.

Furthermore, consensus can be required among different approaches to identifying a chosen function.

For example, if the function desired to be identified is coding of protein sequence, and a first used approach to exon calling is gene prediction, the process can be repeated on the same input sequence, or subset thereof, with another approach, such as comparative sequence analysis. In such a case, where comparative sequence analysis follows gene prediction, the comparison can be performed not only on genomic nucleic acid sequence, but additionally or alternatively can be performed on the predicted amino acid sequence translated from the ORFs prior identified by the gene prediction approach.

Although shown as an iterative process, the multiple analyses required to achieve consensus can be done in series, in parallel, or some combination thereof.

Predicted functional sequence, optionally representing a consensus among a plurality of methods and approaches for determination thereof, is passed to process 300 for identification of a subset thereof for functional assay.

In the preferred embodiment of the methods of the present invention, wherein the function sought to be identified is protein coding, process 300 is used to identify a subset thereof suitable for experimental verification by physical and/or bioinformatic approaches.

For example, putative ORFs identified in process 200 can be classified, or binned, bioinformatically into putative genes. This binning can be based *inter alia* upon consideration of the average number of exons/gene in the species chosen for analysis, upon density of exons that have been called on the genomic sequence, and other empirical rules. Thereafter, one or more among the gene-specific ORFs can be chosen for subsequent use in gene expression assay.

Where such subsequent gene expression assay uses amplified nucleic acid, considerations such as desired amplicon length, primer synthesis requirements, putative exon length, sequence GC content, existence of possible secondary structure, and the like can be used to identify and select those ORFs that appear most likely successfully to amplify. Where subsequent gene expression assay relies upon nucleic acid hybridization, whether or not using amplified product, further considerations involving hybridization stringency can be applied to identify that subset of sequences that will most readily permit sequence-specific discrimination at a chosen hybridization and wash stringency. One particular such consideration is avoidance of putative exons that span repetitive sequence; such sequence can hybridize spuriously to nonspecific message, reducing specific signal in the hybridization.

For bioinformatic assay, there are fewer constraints on the sequences that can be tested experimentally, and in this latter case therefore process 300 can output the entirety of the input sequence.

The subset of sequences identified by process 300 as suitable for use in assay is then used in process 400 to create the physical and/or informational substrate for experimental verification of the predictions made in process 200, and thereafter to assay those substrates.

As mentioned, the methods of the present invention are particularly useful for identifying potential coding regions within genomic sequence. In a preferred embodiment of process 400, therefore, the expression of the sequences predicted to encode protein is verified. The combination of the predictive and experimental methods provides a powerful gene discovery engine.

Thus, in another aspect, the present invention provides methods and apparatus for verifying the expression of putative genes identified within genomic sequence. In particular, the invention provides a novel method of verifying gene expression in which expression of predicted ORFs is measured and confirmed using a novel type of nucleic acid microarray, the genome-derived single exon nucleic acid microarrays of the present invention.

Putative ORFs as predicted by a consensus of gene calling, particularly gene prediction, algorithms in process 200, and as further identified as suitable by process 300, are amplified from genomic DNA using the polymerase chain reaction (PCR). Although PCR is conveniently used, other amplification approaches can also be used.

Amplification schemes can be designed to capture the entirety of each predicted ORF in an amplicon with minimal additional (that is, intronic or intergenic) sequence. Because ORFs predicted from human genomic sequence using the methods of the present invention differ in length, such an approach results in amplicons of varying length.

However, most predicted ORFs are shorter than 500 bp in length, and although amplicons of at least about 100 or 200 base pairs can be immobilized as probes on nucleic acid microarrays, early experimental results using the methods of the present invention have suggested that longer amplicons, at least about 400 or 500 base pairs, are more effective. Furthermore, certain advantages derive from application to the microarray of amplicons of defined size.

Therefore, amplification schemes can alternatively, and preferably, be designed to amplify regions of defined size, preferably at least about 300, 400 or 500 bp, centered about each predicted ORF. Such an approach results in a population of amplicons of limited size diversity, but that typically contain intronic and/or intergenic nucleic acid in addition to putative ORF.

Conversely, somewhat fewer than 10% of ORFs predicted from human genomic sequence according to the methods of the present invention exceed 500 bp in length. Portions of such extended ORFs, preferably at least about 300,400 or 500 bp in length, can be amplified. However, it has been discovered that the percentage success at amplifying pieces of such ORFs is low, and that such putative exons are more effectively amplified when larger fragments, at least about 1000 or 1500 bp, and even as large as 2000 bp are amplified.

The putative ORFs selected in process 300 are thus input into one or more primer design programs, such as PRIMER3 (available online for use at http://www-genome.wi.mit.edu/cgi-bin/primer/ ), with a goal of amplifying at least about 500 base pairs of genomic sequence centered within or about ORFs predicted to be no more than about 500 bp, or at least about 1000 - 1500 bp of genomic sequence for ORFs predicted to exceed 500 bp in length, and the primers synthesized by standard techniques. Primers with the requisite sequences can be purchased commercially or synthesized by standard techniques.

Conveniently, a first predetermined sequence can be added commonly to the ORF-specific 5' primer and a second, typically different, predetermined sequence commonly added to each 3' ORF-unique primer. This serves to immortalize the amplicon, that is, serves to permit further amplification of any amplicon using a single set of primers complementary respectively to the common 5' and common 3' sequence elements. The presence of these "universal" priming sequences further facilitates later sequence verification, providing a sequence common to all amplicons at which to prime sequencing reactions. The common 5' and 3' sequences further serve to add a cloning site should any of the ORFs warrant further study.

Such predetermined sequence is usefully at least about 10, 12 or 15 nt in length, and usually does not exceed about 25 nt in length. The "universal" priming sequences used in the examples presented *infra* were each 16 nt long.

The genomic DNA to be used as substrate for amplification will come from the eukaryotic species from which the genomic sequence data had originally been obtained, or a closely related species, and can conveniently be prepared by well known techniques from somatic or germline tissue or cultured cells of the organism. See, *e.g.*, Short Protocols in Molecular Biology : A Compendium of Methods from Current Protocols in Molecular Biology, Ausubel et al. (eds.), 4th edition (April 1999), John Wiley & Sons (ISBN: 047132938X) and Maniatis *et al.*, Molecular Cloning : A Laboratory Manual, 2nd edition (December 1989), Cold Spring Harbor Laboratory Press (ISBN: 0879693096). Many such prepared genomic DNAs are available commercially, with the human genomic DNAs additionally having certification of donor informed consent.

Although the intronic and intergenic material flanking putative coding regions in the amplicons could potentially interfere with hybridizations during microarray experiments, we have found, surprisingly, that differential expression ratios are not significantly affected. Rather, the predominant effect of exon size is to alter the absolute signal intensity, rather than its ratio. Equally surprising, the art had suggested that single exon probes would not provide sufficient signal intensity for high stringency hybridization analyses; we find that such probes not only provide adequate signal, but have substantial advantages, as herein described.

After partial purification, as by size exclusion spin column, with or without confirmation as to amplicon quality as by gel electrophoresis, each amplicon (single exon probe) is disposed in an array upon a support substrate.

Methods for creating microarrays by deposition and fixation of nucleic acids onto support substrates are well known in the art (Reviewed by Schena et al., see above).

Typically, the support substrate will be glass, although other materials, such as amorphous or crystalline silicon or plastics. Such plastics include polymethylacrylic, polyethylene, polypropylene, polyacrylate, polymethylmethacrylate, polyvinylchloride, polytetrafluoroethylene, polystyrene, polycarbonate, polyacetal, polysulfone, celluloseacetate, cellulosenitrate, nitrocellulose, or mixtures thereof, can also be used. Typically, the support will be rectangular, although other shapes, particularly circular disks and even spheres, present certain advantages. Particularly advantageous alternatives to glass slides as support substrates for array of nucleic acids are optical discs, as described in WO 98/12559.

The amplified nucleic acids can be attached covalently to a surface of the support substrate or, more typically, applied to a derivatized surface in a chaotropic agent that facilitates denaturation and adherence by presumed noncovalent interactions, or some combination thereof.

Robotic spotting devices useful for arraying nucleic acids on support substrates can be constructed using public domain specifications (The MGuide, version 2.0, http://cmgm.stanford.edu/pbrown/mguide/index.html), or can conveniently be purchased from commercial sources (MicroArray GenII Spotter and MicroArray GenIII Spotter, Molecular Dynamics, Inc., Sunnyvale, CA). Spotting can also be effected by printing methods, including those using ink jet technology.

As is well known in the art, microarrays typically also contain immobilized control nucleic acids. For controls useful in providing measurements of background signal for the genome-derived single exon microarrays of the present invention, a plurality of *E. coli* genes can readily be used. As further described in Example 1, 16 or 32 *E. coli* genes suffice to provide a robust measure of background noise in such microarrays.

As is well known in the art, the amplified product disposed in arrays on a support substrate to create a nucleic acid microarray can consist entirely of natural nucleotides linked by phosphodiester bonds, or alternatively can include either nonnative nucleotides, alternative internucleotide linkages, or both, so long as complementary binding can be obtained in the hybridization. If enzymatic amplification is used to produce the immobilized probes, the amplifying enzyme will impose certain further constraints upon the types of nucleic acid analogs that can be generated.

Although particularly described herein as using high density microarrays constructed on planar substrates, the methods of the present invention for confirming the expression of ORFs predicted from genomic sequence can use any of the known types of microarrays, as herein defined, including lower density planar arrays, and microarrays on nonplanar, nonunitary, distributed substrates.

For example, gene expression can be confirmed using hybridization to lower density arrays, such as those constructed on membranes, such as nitrocellulose, nylon, and positively-charged derivatized nylon membranes. Further, gene expression can also be confirmed using nonplanar, bead-based microarrays such as are described in Brenner *et al., Proc. Natl. Acad. Sci. USA* 97(4):166501670 (2000); U.S. Patent No. 6,057,107; and U.S. Patent No. 5,736,330. In theory, a packed collection of such beads provides in aggregate a higher density of nucleic acid probe than can be achieved with spotting or lithography techniques on a single planar substrate.

Planar microarrays on solid substrates, however, provide certain useful advantages, including high throughput and compatibility with existing readers. For example, each standard microscope slide can include at least 1000, typically at least 2000, preferably 5000 and upto 10,000 - 50,000 or more nucleic acid probes of discrete sequence. The number of sequences deposited will depend on their required application.

Each putative gene can be represented in the array by a single predicted ORF. Alternatively, genes can be represented by more than one predicted ORF. For purposes of measuring differential splicing, more than one predicted ORF will be provided for a putative gene. And as is well known in the art, each probe of defined sequence, representing a single predicted ORF, can be deposited in a plurality of locations on a single microarray to provide redundancy of signal.

The genome-derived single exon microarrays described above differ in several fundamental and advantageous ways from microarrays presently used in the gene expression art, including (1) those created by deposition of mRNA-derived nucleic acids, (2) those created by *in situ* synthesis of oligonucleotide probes, and (3) those constructed from yeast genomic DNA.

Most nucleic acid microarrays that are in use for study of eukaryotic gene expression have as immobilized probes nucleic acids that are derived – either directly or indirectly – from expressed message. As discussed above, it is common, for example, for such microarrays to be derived from cDNA/EST libraries, either from those previously described in the literature, see Lennon *et al.*, or from the *de novo* construction of "problem specific" libraries targeted at a particular biological question, R.S. Thomas *et al.*, *Cancer Res.* (in press). Such microarrays are herein collectively denominated "EST microarrays".

Such EST microarrays by definition can measure expression only of those genes found in EST libraries, shown herein to represent only a fraction of expressed genes. Furthermore, such libraries – and thus microarrays based thereupon – are biased by the tissue or cell type of message origin, by the expression levels of the respective genes within the tissues, and by the ability of the message successfully to have been reverse-transcribed and cloned.

Thus, as further discussed in Example 1, the methods of the present invention enable sequences that do not appear in EST or other expression databases to be determined - subsequently arrayed for expression measurements could not, therefore, have been represented as probes on an EST microarray. And as further demonstrated in the examples, *infra*, the remaining population of genes identified from genomic sequence by the methods of the present invention – that is, the one third of sequences that had previously been accessioned in EST or other expression databases – are biased toward genes with higher expression levels.

Representation of a message in an EST and/or cDNA library depends upon the successful reverse transcription, optionally but typically with subsequent successful cloning, of the message. This introduces substantial bias into the population of probes available for arraying in EST microarrays.

In contrast, neither reverse transcription nor cloning is required to produce the probes arrayed on the genome-derived single exon microarrays of the present invention. And although the ultimate deposition of a probe on the genome-derived single exon microarray of the present invention depends upon a successful amplification from genomic material, *a priori* knowledge of the sequence of the desired amplicon affords greater opportunity to recover any given probe sequence recalcitrant to amplification than is afforded by the requirement for successful reverse transcription and cloning of unknown message in EST approaches.

Thus, the genome-derived single exon microarrays of the present invention present a far greater diversity of probes for measuring gene expression, with far less bias, than do EST microarrays presently used in the art.

As a further consequence of their ultimate origin from expressed message, the probes in EST microarrays often contain poly-A (or complementary poly-T) stretches derived from the poly-A tail of mature mRNA. These homopolymeric stretches contribute to cross-hybridization, that is, to a spurious signal occasioned by hybridization to the homopolymeric tail of a labeled cDNA that lacks sequence homology to the gene-specific portion of the probe.

In contrast, the probes arrayed in the genome-derived single exon microarrays of the present invention lack homopolymeric stretches derived from message polyadenylation, and thus can provide more specific signal. Typically, at least about 50, 60 or 75% of the probes on the genome-derived single exon microarrays of the present invention lack homopolymeric regions consisting of A or T, where a homopolymeric region is defined for purposes herein as stretches of 25 or more, typically 30 or more, identical nucleotides.

A further distinction, which also affects the specificity of hybridization, is occasioned by the typical derivation of EST microarray probes from cloned material. Because much of the probe material disposed as probes on EST microarrays is excised or amplified from plasmid, phage, or phagemid vectors, EST microarrays typically include a fair amount of vector sequence, more so when the probes are amplified, rather than excised, from the vector.

In contrast, the vast majority of probes in the genome-derived single exon microarrays of the present invention contain no prokaryotic or bacteriophage vector sequence, having been amplified directly or indirectly from genomic DNA. Typically, therefore, at least about 50, 60, 70 or 80% or more of individual exon-including probes disposed on a genome-derived single exon microarray of the present invention lack vector sequence, and particularly lack sequences drawn from plasmids and bacteriophage. Preferably, at least about 85, 90 or more than 90% of exon-including probes in the genome-derived single exon microarray of the present invention lack vector sequence. With attention to removal of vector sequences through preprocessing 24, percentages of vector-free exon-including probes can be as high as 95 - 99%. The substantial absence of vector sequence from the genome-derived single exon microarrays of the present invention results in greater specificity during hybridization, since spurious cross-hybridization to a probe vector sequence is reduced.

As a further consequence of excision or amplification of probes from vectors in construction of EST microarrays, the probes arrayed thereon often contain artificial sequence, derived from vector polylinker multiple cloning sites, at both 5' and 3' ends. The probes disposed upon the genome-derived single exon microarrays need have no such artificial sequence appended thereto.

As mentioned above, however, the ORF-specific primers used to amplify putative ORFs can include artificial sequences, typically 5' to the ORF-specific primer sequence, useful for "universal" (that is, independent of ORF sequence) priming of subsequent amplification or sequencing reactions. When such "universal" 5' and/or 3' priming sequences are appended to the amplification primers, the probes disposed upon the genome-derived single exon microarray will include artificial sequence similar to that found in EST microarrays. However, the genome-derived single exon microarray of the present invention can be made without such sequences, and if so constructed, presents an even smaller amount of nonspecific sequence that would contribute to nonspecific hybridization.

Yet another consequence of typical use of cloned material as probes in EST microarrays is that such microarrays contain probes that result from cloning artifacts, such as chimeric molecules containing coding region of two separate genes. Derived from genomic material, typically not thereafter cloned, the probes of the genome-derived single exon microarrays of the present invention lack such cloning artifacts, and thus provide greater specificity of signal in gene expression measurements.

A further consequence of the cloned origin of probes on many EST microarrays is that the individual probes often have disparate sizes, which can cause the optimal hybridization stringency to vary among probes on a single microarray. In contrast, as discussed above, the probes arrayed on the genome-derived single exon microarrays of the present invention can readily be designed to have a narrow distribution in sizes, with the range of probe sizes no greater than about 10% of the average size, typically no greater than about 5% of the average probe size.

Because of their origin from fully- or partially-spliced message, probes disposed upon EST arrays will often include multiple exons. The percentage of such exon-spanning probes in an EST microarray can be calculated, on average, based upon the predicted number of exons/gene for the given species and the average length of the immobilized probes. For human genes, the near-complete sequence of human chromosome 22, Dunham *et al.*, *Nature* 402(6761):489-95 (1999), predicts that human genes average 5.5 exons/gene. Even with probes of 200 - 500 bp, the vast majority of human EST microarray probes include more than one exon.

In contrast, by virtue of their origin from algorithmically identified ORFs in genomic sequence, the probes in the genome-derived single exon microarrays of the present invention can consist of individual exons. Thus, in contrast to EST microarrays, at least about 50, 60, 70, 75, 80, 85, 95 or 99% of probes deposited in the genome-derived microarray of the present invention consist of, or include, no more than one predicted ORF.

This provides the ability, not readily achieved using EST microarrays, to use the genome-derived single exon microarrays of the present invention to measure tissue-specific expression of individual exons, which in turn allows differential splicing events to be detected and characterized, and in particular, allows the correlation of differential splicing to tissue-specific expression patterns.

Furthermore, the exons that are represented in EST microarrays are often biased toward the 3' or 5' end of their respective genes, since sequencing strategies used for EST identification are so biased. In contrast, no such 3' or 5' bias necessarily inheres in the selection of exons for disposition on the genome-derived single exon microarrays of the present invention.

Conversely, the probes provided on the genome-derived single exon microarrays of the present invention typically, but need not necessarily, include intronic and/or intergenic sequence that is absent from EST microarrays, which are derived from mature mRNA. Typically, at least about 50, 60, 70, 80 or 90% of the exon-including probes on the genome-derived single exon microarrays of the present invention include sequence drawn from noncoding regions. As discussed above, the additional presence of noncoding region does not significantly interfere with measurement of gene expression, and provides the additional opportunity to assay prespliced RNA, and thus measure such phenomena such as nuclear export control.

The genome-derived single exon microarrays of the present invention are also quite different from *in situ* synthesis microarrays, where probe size is severely constrained by inadequacies in the photolithographic synthesis process.

Typically, probes arrayed on *in situ* synthesis microarrays are limited to a maximum of about 25 bp. As a well known consequence, hybridization to such chips must be performed at low stringency. In order, therefore, to achieve unambiguous sequence-specific hybridization results, the *in situ* synthesis microarray requires substantial redundancy, with concomitant programmed arraying for each probe of probe analogues with altered (*i.e.*, mismatched) sequence.

In contrast, the longer probe length of the genome-derived single exon microarrays of the present invention allows much higher stringency hybridization and wash. Typically, therefore, exon-including probes on the genome-derived single exon microarrays of the present invention average at least about 100, 200, 300, 400 or 500 bp in length. By obviating the need for substantial probe redundancy, this approach permits a higher density of probes for discrete exons or genes to be arrayed on the microarrays of the present invention than can be achieved for *in situ* synthesis microarrays.

A further distinction is that the probes in *in situ* synthesis microarrays typically are covalently linked to the substrate surface. In contrast, the probes disposed on the genome-derived microarray of the present invention typically are, but need not necessarily be, bound noncovalently to the substrate.

Furthermore, the short probe size on *in situ* microarrays causes large percentage differences in the melting temperature of probes hybridized to their complementary target sequence, and thus causes large percentage differences in the theoretically optimum stringency across the array as a whole.

In contrast, the larger probe size in the microarrays of the present invention create lower percentage differences in melting temperature across the range of arrayed probes.

A further significant advantage of the microarrays of the present invention over *in situ* synthesized arrays is that the quality of each individual probe can be confirmed before deposition. In contrast, the quality of probes cannot be assessed on a probe-by-probe basis for the *in situ* synthesized microarrays presently being used.

The genome-derived single exon microarrays of the present invention are also distinguished over, and present substantial benefits over, the genome-derived microarrays from lower eukaryotes such as yeast. Lashkari *et al.*, *Proc. Natl. Acad. Sci. USA* 94:13057-13062 (1997).

Only about 220 - 250 of the 6100 or so nuclear genes in *Saccharomyces cerevisiae* – that is, only about 4 - 5% – have standard, spliceosomal, introns, Lopez *et al.*, *Nucl. Acids Res.* 28:85-86 (2000); Spingola *et al.*, *RNA* 5(2):221-34 (1999). Furthermore, the entire yeast genome has already been sequenced. These two facts permit the ready amplification and disposition of single-ORF amplicons on such microarray without the requirement for antecedent use of gene prediction and/or comparative sequence analyses.

Thus, a significant aspect of the present invention is the ability to identify and to confirm expression of predicted coding regions in genomic sequence drawn from eukaryotic organisms that have a higher percentage of genes having introns than do yeast such as *Saccharomyces cerevisiae*, particularly in genomic sequence drawn from eukaryotes in which at least about 10, 20 or 50% of protein-encoding genes have introns. In preferred embodiments, the methods and apparatus of the present invention are used to identify and confirm expression of novel genes from genomic sequence of eukaryotes in which the average number of introns per gene is at least about one, two or three or more.

After the physical substrate is prepared, experimental verification of predicted function is performed.

In a preferred embodiment of the present invention, where the function sought to be identified in genomic sequence is protein coding, experimental verification is performed by measuring expression of the putative ORFs, typically through nucleic acid hybridization experiments, and in particularly preferred embodiments, through hybridization to genome-derived single exon microarrays prepared as above- described.

Expression is conveniently measured and expressed for each probe in the microarray as a ratio of the expression measured concurrently in a plurality of mRNA sources, according to techniques well known in the microarray art, *Reviewed in* Schena et al., and as further described in Example 2, below. The mRNA source for the reference against which specific expression is measured can be drawn from a homogeneous mRNA source, such as a single cultured cell-type, or alternatively can be heterogeneous, as from a pool of mRNA derived from multiple tissues and/or cell types, as further described in Example 2, *infra*.

mRNA can be prepared by standard techniques, see Ausubel et al. and Maniatis *et al*., or purchased commercially. The mRNA is then typically reverse-transcribed in the presence of labeled nucleotides: the index source (that in which expression is desired to be measured) is reverse transcribed in the presence of nucleotides labeled with a first label, typically a fluorophore (fluorochrome; fluor; fluorescent dye); the reference source is reverse transcribed in the presence of a second label, typically a fluorophore, typically fluorometrically-distinguishable from the first label. As further described in Example 2, *infra*, Cy3 and Cy5 dyes prove particularly useful in these methods. After partial purification of the index and reference targets, hybridization to the probe array is conducted according to standard techniques, typically under a coverslip.

After wash, microarrays are conveniently scanned using a commercial microarray scanning device, such as a Gen3 Scanner (Molecular Dynamics, Sunnyvale, CA). Data on expression is then passed, with or without interim storage, to process 500, where the results for each probe are related to the original sequence.

Often, hybridization of target material to the genome-derived single exon microarray will identify certain of the probes thereon as of particular interest. Thus, it is often desirable that the user be able readily to obtain sufficient quantities of an individual probe, either for subsequent arrayed deposition upon an additional support substrate, often as part of a microarray having a plurality of probes so identified, or alternatively or additionally as a solitary solid-phase or solution-phase probe, for further use.

Thus, in another aspect, the present invention provides compositions and kits for the ready production of nucleic acids identical in sequence to, or substantially identical in sequence to, probes on the genome-derived single exon microarrays of the present invention.

In this aspect, a small quantity of each probe is disposed, typically without attachment to substrate, in a spatially-addressable ordered set, typically one per well of a microtiter dish. Although a 96 well microtiter plate can be used, greater efficiency is obtained using higher density arrays, such as are provided by microtiter plates having 384, 864, 1536, 3456, 6144, or 9600 wells, and although microtiter plates having physical depressions (wells) are conveniently used, any device that permits addressable withdrawal of reagent from fluidly-noncommunicating areas can be used.

In this aspect of the invention, therefore, a fluidly noncommunicating addressable ordered set of individual probes, corresponding to those on a genome-derived single exon microarray, is provided, with each probe in sufficient quantity to permit amplification, such as by PCR. As earlier mentioned, the ORF-specific 5' primers used for genomic amplification can have a first common sequence added thereto, and the ORF-specific 3' primers used for genomic amplification can have a second, different, common sequence added thereto, thus permitting, in this preferred embodiment, the use of a single set of 5' and 3' primers to amplify any one of the probes from the amplifiable ordered set.

Each discrete amplifiable probe can also be packaged with amplification primers, solutes, buffers, *etc.*, and can be provided in dry (*e.g.*, lyophilized) form or wet, in the latter case typically with addition of agents that retard evaporation.

In another aspect of the present invention, a genome-derived single-exon microarray is packaged together with such an ordered set of amplifiable probes corresponding to the probes, or one or more subsets of probes, thereon. In alternative embodiments, the ordered set of amplifiable probes is packaged separately from the genome-derived single exon microarray.

In some embodiments, the microarray and/or ordered probe set are further packaged with recordable media that provide probe identification and addressing information, and that can additionally contain annotation information, such as gene expression data. Such recordable media can be packaged with the microarray, with the ordered probe set, or with both.

If the microarray is constructed on a substrate that incorporates recordable media, such as is described in international patent application no. WO 98/12559, then separate packaging of the genome-derived single exon microarray and the bioinformatic information is not required.

The amount of amplifiable probe material should be sufficient to permit at least one amplification sufficient for subsequent hybridization assay.

Although the use of high density genome-derived microarrays on solid planar substrates is presently a preferred approach for the physical confirmation and characterization of the expression of sequences predicted to encode protein, other types of microarrays (as herein defined) can also be used.

Furthermore, as earlier mentioned, experimental verification of the function predicted from genomic sequence in process 200 can be bioinformatic, rather than, or additional to, physical verification.

For example, where the function desired to be identified is protein coding, the predicted ORFs can be compared bioinformatically to sequences known or suspected of being expressed.

Thus, the sequences output from process 300 (or process 200), can be used to query expression databases, such as EST databases, SNP ("single nucleotide polymorphism") databases, known cDNA and mRNA sequences, SAGE ("serial analysis of gene expression") databases, and more generalized sequence databases that allow query for expressed sequences. Such query can be done by any sequence query algorithm, such as BLAST ("basic local alignment search tool"). The results of such query – including information on identical sequences and information on nonidentical sequences that have diffuse or focal regions of sequence homology to the query sequence – can then be passed directly to process 500, or used to inform analyses subsequently undertaken in process 200, process 300, or process 400.

Experimental data, whether obtained by physical or bioinformatic assay in process 400, is passed to process 500 where it is usefully related to the sequence data itself, a process colloquially termed "annotation". Such annotation can be done using any technique that usefully relates the functional information to the sequence, as, for example, by incorporating the functional data into the record itself, by linking records in a hierarchical or relational database, by linking to external databases, or by a combination thereof. Such database techniques are well within the skill in the art.

The annotated sequence data can be stored locally, uploaded to genomic sequence database 100, and/or displayed 800.

The methods and apparatus of the present invention rapidly produce functional information from genomic sequence. Coupled with the escalating pace at which sequence now accumulates, the rapid pace of sequence annotation produces a need for methods of displaying the information in meaningful ways.

FIG. 3 shows visual display 80 presenting a single genomic sequence annotated according to the present invention. Because of its nominal resemblance to artistic works of Piet Mondrian, visual display 80 is alternatively described herein as a "Mondrian".

Each of the visual elements of display 80 is aligned with respect to the genomic sequence being annotated (hereinafter, the "annotated sequence"). Given the number of nucleotides typically represented in an annotated sequence, representation of individual nucleotides would rarely be readable in hard copy output of display 80. Typically, therefore, the annotated sequence is schematized as rectangle 89, extending from the left border of display 80 to its right border. By convention herein, the left border of rectangle 89 represents the first nucleotide of the sequence and the right border of rectangle 89 represents the last nucleotide of the sequence.

As further discussed below, however, the Mondrian visual display of annotated sequence can serve as a convenient graphical user interface for computerized representation, analysis, and query of information stored electronically. For such use, the individual nucleotides can conveniently be linked to the X axis coordinate of rectangle 89. This permits the annotated sequence at any point within rectangle 89 readily to be viewed, either automatically – for example, by time-delayed appearance of a small overlaid window upon movement of a cursor or other pointer over rectangle 89 – or through user intervention, as by clicking a mouse or other pointing device at a point in rectangle 89.

Visual display 80 is generated after user specification of the genomic sequence to be displayed. Such specification can consist of or include an accession number for a single clone (*e.g.*, a single BAC accessioned into GenBank), wherein the starting and stopping nucleotides are thus absolutely identified, or alternatively can consist of or include an anchor or fulcrum point about which a chosen range of sequence is anchored, thus providing relative endpoints for the sequence to be displayed. For example, the user can anchor such a range about a given chromosomal map location, gene name, or even a sequence returned by query for similarity or identity to an input query sequence. When visual display 80 is used as a graphical user interface to computerized data, additional control over the first and last displayed nucleotide will typically be dynamically selectable, as by use of standard zooming and/or selection tools.

Field 81 of visual display 80 is used to present the output from process 200, that is, to present the bioinformatic prediction of those sequences having the desired function within the genomic sequence. Functional sequences are typically indicated by at least one rectangle 83 (83a, 83b, 83c), the left and right borders of which respectively indicate, by their X-axis coordinates, the starting and ending nucleotides of the region predicted to have function.

Where a single bioinformatic method or approach identifies a plurality of regions having the desired function, a plurality of rectangles 83 is disposed horizontally in field 81. Where multiple methods and/or approaches are used to identify function, each such method and/or approach can be represented by its own series of horizontally disposed rectangles 83, each such horizontally disposed series of rectangles offset vertically from those representing the results of the other methods and approaches.

Thus, rectangles 83a in FIG. 3 represent the functional predictions of a first method of a first approach for predicting function, rectangles 83b represent the functional predictions of a second method and/or second approach for predicting that function, and rectangles 83c represent the predictions of a third method and/or approach.

Where the function desired to be identified is protein coding, field 81 is used to present the bioinformatic prediction of sequences encoding protein. For example, rectangles 83a can represent the results from GRAIL or GRAIL II, rectangles 83b can represent the results from GENEFINDER, and rectangles 83c can represent the results from DICTION.

Optionally, and preferably, rectangles 83 collectively representing predictions of a single method and/or approach are identically colored and/or textured, and are distinguishable from the color and/or texture used for a different method and/or approach.

Alternatively, or in addition, the color, hue, density, or texture of rectangles 83 can be used further to report a measure of the bioinformatic reliability of the prediction. For example, many gene prediction programs will report a measure of the reliability of prediction. Thus, increasing degrees of such reliability can be indicated, *e.g.*, by increasing density of shading. Where display 80 is used as a graphical user interface, such measures of reliability, and indeed all other results output by the program, can additionally or alternatively be made accessible through linkage from individual rectangles 83, as by time-delayed window ("tool tip" window), or by pointer (*e.g.*, mouse)-activated link.

As earlier described, increased predictive reliability can be achieved by requiring consensus among methods and/or approaches to determining function. Thus, field 81 can include a horizontal series of rectangles 83 that indicate one or more degrees of consensus in predictions of function.

Although FIG. 3 shows three series of horizontally disposed rectangles in field 81, display 80 can include as few as one such series of rectangles and as many as can discriminably be displayed, depending upon the number of methods and/or approaches used to predict a given function.

Furthermore, field 81 can be used to show predictions of a plurality of different functions. However, the increased visual complexity occasioned by such display makes more useful the ability of the user to select a single function for display. When display 80 is used as a graphical user interface for computer query and analysis, such function can usefully be indicated and user-selectable, as by a series of graphical buttons or tabs (not shown in FIG. 3).

Rectangle 89 is shown in FIG. 3 as including interposed rectangle 84. Rectangle 84 represents the portion of annotated sequence for which predicted functional information has been assayed physically, with the starting and ending nucleotides of the assayed material indicated by the X axis coordinates of the left and right borders of rectangle 84. Rectangle 85, with optional inclusive circles 86 (86a, 86b, and 86c) displays the results of such physical assay.

Although a single rectangle 84 is shown in FIG. 3, physical assay is not limited to just one region of annotated genomic sequence. It is expected that an increasing percentage of regions predicted to have function by process 200 will be assayed physically, and that display 80 will accordingly, for any given genomic sequence, have an increasing number of rectangles 84 and 85, representing an increased density of sequence annotation.

Where the function desired to be identified is protein coding, rectangle 84 identifies the sequence of the probe used to measure expression. In embodiments of the present invention where expression is measured using genome-derived single exon microarrays, rectangle 84 identifies the sequence included within the probe immobilized on the support surface of the microarray. As noted *supra*, such probe will often include a small amount of additional, synthetic, material incorporated during amplification and designed to permit reamplification of the probe, which sequence is typically not shown in display 80.

Rectangle 87 is used to present the results of bioinformatic assay of the genomic sequence. For example, where the function desired to be identified is protein coding, process 400 can include bioinformatic query of expression databases with the sequences predicted in process 200 to encode exons. And as earlier discussed, because bioinformatic assay presents fewer constraints than does physical assay, often the entire output of process 200 can be used for such assay, without further subsetting thereof by process 300. Therefore, rectangle 87 typically need not have separate indicators therein of regions submitted for bioinformatic assay; that is, rectangle 87 typically need not have regions therein analogous to rectangles 84 within rectangle 89.

Rectangle 87 as shown in FIG. 3 includes smaller rectangles 880 and 88. Rectangles 880 indicate regions that returned a positive result in the bioinformatic assay, with rectangles 88 representing regions that did not return such positive results. Where the function desired to be predicted and displayed is protein coding, rectangles 880 indicate regions of the predicted exons that identify sequence with significant similarity in expression databases, such as EST, SNP, SAGE databases, with rectangles 88 indicating genes novel over those identified in existing expression data bases.

Rectangles 880 can further indicate, through color, shading, texture, or the like, additional information obtained from bioinformatic assay.

For example, where the function assayed and displayed is protein coding, the degree of shading of rectangles 880 can be used to represent the degree of sequence similarity found upon query of expression databases. The number of levels of discrimination can be as few as two (identity, and similarity, where similarity has a user-selectable lower threshold). Alternatively, as many different levels of discrimination can be indicated as can visually be discriminated.

Where display 80 is used as a graphical user interface, rectangles 880 can additionally provide links directly to the sequences identified by the query of expression databases, and/or statistical summaries thereof. As with each of the precedingly-discussed uses of display 80 as a graphical user interface, it should be understood that the information accessed via display 80 need not be resident on the computer presenting such display, which often will be serving as a client, with the linked information resident on one or more remotely located servers.

Rectangle 85 displays the results of physical assay of the sequence delimited by its left and right borders.

Rectangle 85 can consist of a single rectangle, thus indicating a single assay, or alternatively, and increasingly typically, will consist of a series of rectangles (85a, 85b, 85c) indicating separate physical assays of the same sequence.

Where the function assayed is gene expression, and where gene expression is assayed as herein described using simultaneous two-color fluorescent detection of hybridization to genome-derived single exon microarrays, individual rectangles 85 can be colored to indicate the degree of expression relative to control. Conveniently, shades of green can be used to depict expression in the sample over control values, and shades of red used to depict expression less than control, corresponding to the spectra of the Cy3 and Cy5 dyes conventionally used for respective labeling thereof. Additional functional information can be provided in the form of circles 86 (86a, 86b, 86c), where the diameter of the circle can be used to indicate expression intensity. As discussed *infra*, such relative expression (expression ratios) and absolute expression (signal intensity) can be expressed using normalized values.

Where display 80 is used as a graphical user interface, rectangle 85 can be used as a link to further information about the assay. For example, where the assay is one for gene expression, each rectangle 85 can be used to link to information about the source of the hybridized mRNA, the identity of the control, raw or processed data from the microarray scan, or the like.

FIG. 4 is rendition of display 80 representing gene prediction and gene expression for a hypothetical BAC, showing conventions used in the Examples presented *infra*. BAC sequence ("Chip seq.") 89 is presented, with the physically assayed region thereof (corresponding to rectangle 84 in FIG. 3) shown in white. Algorithmic gene predictions are shown in field 81, with predictions by GRAIL shown, predictions by GENEFINDER, and predictions by DICTION shown. Within rectangle 87, regions of sequence that, when used to query expression databases, return identical or similar sequences ("EST hit") are shown as white rectangles (corresponding to rectangles 880 in FIG. 3), gray indicates low homology, and black indicates unknowns (where black and gray would correspond to rectangles 88 in FIG. 3).

Although FIGS. 3 and 4 show a single stretch of sequence, uninterrupted from left to right, longer sequences are usefully represented by vertical stacking of such individual Mondrians, as shown in FIGS. 9 and 10.

## Single Exon Probes Useful For Measuring Gene Expression

The methods and apparatus of the present invention rapidly produce functional information from genomic sequence. Where the function to be identified is protein coding, the methods and apparatus of the present invention rapidly identify and confirm the expression of portions of genomic sequence that function to encode protein. As a direct result, the methods and apparatus of the present invention rapidly yield large numbers of single-exon nucleic acid probes, the majority from previously unknown genes, each of which is useful for measuring and/or surveying expression of a specific gene in one or more tissues or cell types.

It is, therefore, another aspect of the present invention to provide genome-derived single exon nucleic acid probes useful for gene expression analysis, and particularly for gene expression analysis by microarray.

Using the methods and genome-derived single-exon microarrays of the present invention, we have for example readily identified a large number of unique ORFs from human genomic sequence. Using single exon probes that encompass these ORFs, we have demonstrated, through microarray hybridization analysis, the expression of 13,232 of these ORFs in placenta.

As would immediately be appreciated by one of skill in the art, each single exon probe having demonstrable expression in placenta is currently available for use in measuring the level of its ORF's expression in placenta.

Given the substantial impact on human morbidity and mortality of diseases directly caused by genetic defect, and given the profound influence of genetic factors on the predisposition, onset, and/or aggressiveness of most, if not all human diseases, there has long been interest in efficient and safe means for early detection of gene defects and polymorphisms that cause, are associated with, or are implicated in development of disease.

Classically, such antenatal diagnosis was effected during second trimester by metaphase karyotyping of fetal cells that had shed spontaneously into amniotic fluid.

More recently, techniques have been developed that permit direct sampling of placenta earlier in pregnancy.

One technique in current clinical practice is chorionic villus sampling, which can be used to detect gene defects or polymorphisms in cells from the developing fetus, usually between 10 and 12 weeks of pregnancy. In chorionic villus sampling, a small sample of chorionic villi, which are tiny projections that make up part of the placenta, a fetal-derived tissue, is removed through the mother's cervix or the abdominal wall. Placental chromosomal DNA is then isolated from the chorionic villus cells and analyzed to detect a small number of known genetic defects. Such defects range from gross karyotypic changes, such as triploidy, to discrete point mutations known to cause diseases having significant morbidity or mortality.

Although only a few diseases are at present diagnosed by antenatal analysis of human placenta, a far higher number of human diseases and disorders have been catalogued in which dysfunction or misregulation of one or more genes contributes to the disease phenotype. At one end of the spectrum of genetic diseases are those, such as sickle cell trait, in which a single point mutation is responsible for the disease phenotype. At the other end of the spectrum lie disorders such as Down syndrome wherein the presence of a supernumerary chromosome manifests itself in variety of phenotypic defects that vary in severity among affected individuals. For most, possibly all genetic diseases, the precise phenotypic manifestation and its severity is a function of a complex interaction between the definable genetic lesion and the action of many other genes and environmental factors.

Although the incidence of many genetic diseases is low, a sufficient number of such genetic diseases affect a sufficiently large population that they impact the national health economy. For example, cystic fibrosis, caused by mutations in a gene encoding a chloride ion channel and resulting in lung and other disorders, occurs at a rate of about 1 in 3000 births among Caucasians and costs over $1 billion annually for direct medical treatment in the U.S. alone. Furthermore, it is increasingly thought that for many diseases where no clear-cut genetic lesion appears responsible, possession by individuals of particular gene alleles naturally occurring within certain populations places such individuals at increased risk for developing those diseases. Examples include heart disease, neurogenerative disorders, diabetes, cancer and autoimmune disorders. For yet other diseases, especially cancer, the etiology is truly polygenic in that defects in multiple genes must cooincide in the same individual or even the same cell for the disease to develop and/or progress.

A large number of human genetic diseases and disorders are known, as are the gene or genes implicated in the etiology of the disease. Although in some cases single gene defects are known to be responsible for the etiology of a genetic disease, it is believed that for most or all such diseases, penetrance of the disease is affected by interaction with other genes. For other diseases or disorders, is believed that their mechanism is explained by the interaction of multiple genes, or by mutations or other defects in multiple genes. Such diseases and disorders may be detected in placenta.

The human genome-derived single exon nucleic acid probes and microarrays of the present invention are useful for antenatal diagnosis of human genetic disorders. With each of the single exon probes described herein shown to be expressed at detectable levels in human placenta, and with about 2/3 of the probes identifying novel genes, the single exon microarrays of the present invention provide exceptionally high informational content for such studies.

For example, antenatal diagnosis can be based upon the quantitative relatedness of a placental gene expression profile to one or more reference expression profiles known to be characteristic of a given disease, or to specific grades or stages thereof.

In one embodiment, the gene expression profile is generated by hybridizing nucleic acids obtained directly or indirectly from placenta, typically through chorionic villus sampling, to the genome-derived single exon microarray of the present invention. Reference profiles are obtained similarly by hybridizing nucleic acids from individuals with known disease.

Methods for quantitatively relating gene expression profiles, without regard to the function of the protein encoded by the gene, are disclosed in WO 99/58720, incorporated herein by reference in its entirety.

In another approach, the genome-derived single exon probes and microarrays of the present invention can be used to interrogate genomic DNA, rather than pools of expressed message; this latter approach permits presence and/or predisposition to disease to be assessed through the massively parallel determination of altered copy number, deletion, or mutation of exons known to be expressed in human placenta. The algorithms set forth in WO 99/58720 can be applied to such genomic profiles without regard to the function of the protein encoded by the interrogated gene.

The utility is specific to the probe; at sufficiently high hybridization stringency, which stringencies are well known in the art – see Ausubel et al. and Maniatis *et al.* – each probe reports the level of expression of message specifically containing that ORF.

It should be appreciated, however, that the probes of the present invention, for which expression in the placenta has been demonstrated are useful for both measurement in the placenta and for survey of expression in other tissues.

Significant among such advantages is the presence of probes for novel genes.

As mentioned above and further detailed in Examples 1 and 2, the methods described enable ORFs which are not present in existing expression databases to be identified. And the fewer the number of tissues in which the ORF can be shown to be expressed, the more likely the ORF will prove to be part of a novel gene: as further discussed in Example 2, ORFs whose expression was measurable in only a single of the tested tissues were represented in existing expression databases at a rate of only 11%, whereas 36% of ORFs whose expression was measurable in 9 tissues were present in existing expression databases, and fully 45% of those ORFs expressed in all ten tested tissues were present in existing expressed sequence databases.

Either as tools for measuring gene expression or tools for surveying gene expression, the genome-derived single exon probes of the present invention have significant advantages over the cDNA or EST-based probes that are currently available for achieving these utilities.

The genome-derived single exon probes of the present invention are useful in constructing genome-derived single exon microarrays; the genome-derived single exon microarrays, in turn, are useful devices for measuring and for surveying gene expression in the human.

Gene expression analysis using microarrays – conventionally using microarrays having probes derived from expressed message – is well-established as useful in the biological research arts (see Lockhart et al. Nature 405, 827-836).

Microarrays have been used to determine gene expression profiles in cells in response to drug treatment (see, for example, Kaminski *et al.*, "Global Analysis of Gene Expression in Pulmonary Fibrosis Reveals Distinct Programs Regulating Lung Inflammation and Fibrosis," *Proc. Natl. Acad. Sci. USA* 97(4):1778-83 (2000); Bartosiewicz *et al.*, "Development of a Toxicological Gene Array and Quantitative Assessment of This Technology," *Arch. Biochem. Biophys.* 376(1):66-73 (2000)), viral infection (see for example, Geiss *et al.*, "Large-scale Monitoring of Host Cell Gene Expression During HIV-1 Infection Using cDNA Microarrays," *Virology* 266(1):8-16 (2000)) and during cell processes such as differentiation, senescence and apoptosis (see, for example, Shelton *et al.*,"Microarray Analysis of Replicative Senescence," *Curr. Biol.* 9(17):939-45 (1999); Voehringer *et al.*, "Gene Microarray Identification of Redox and Mitochondrial Elements That Control Resistance or Sensitivity to Apoptosis," Proc. Natl. Acad. Sci. USA 97(6):2680-5 (2000)).

Microarrays have also been used to determine abnormal gene expression in diseased tissues (see, for example, Alon *et al.*, "Broad Patterns of Gene Expression Revealed by Clustering Analysis of Tumor and Normal Colon Tissues Probed by Oligonucleotide Arrays," *Proc. Natl. Acad. Sci. USA* 96(12):6745-50 (1999); Perou *et al.*, "Distinctive Gene Expression Patterns in Human Mammary Epithelial Cells and Breast Cancers, *Proc. Natl. Acad. Sci. USA* 96(16):9212-7 (1999); Wang *et al.*, "Identification of Genes Differentially Over-expressed in Lung Squamous Cell

Carcinoma Using Combination of cDNA Subtraction and Microarray Analysis," *Oncogene* 19(12):1519-28 (2000); Whitney *et al.*, "Analysis of Gene Expression in Multiple Sclerosis Lesions Using cDNA Microarrays," *Ann. Neurol.* 46(3):425-8 (1999)), in drug discovery screens (see, for example, Scherf *et al.*, "A Gene Expression Database for the Molecular Pharmacology of Cancer," *Nat. Genet.* 24(3):236-44 (2000)) and in diagnosis to determine appropriate treatment strategies (see, for example, Sgroi *et al.*, "*In vivo* Gene Expression Profile Analysis of Human Breast Cancer Progression," *Cancer Res.* 59(22):5656-61 (1999)).

In microarray-based gene expression screens of pharmacological drug candidates upon cells, each probe provides specific useful data. In particular, it should be appreciated that even those probes that show no change in expression are as informative as those that do change, serving, in essence, as negative controls.

For example, where gene expression analysis is used to assess toxicity of chemical agents on cells, the failure of the agent to change a gene's expression level is evidence that the drug likely does not affect the pathway of which the gene's expressed protein is a part. Analogously, where gene expression analysis is used to assess side effects of pharmacological agents – whether in lead compound discovery or in subsequent screening of lead compound derivatives – the inability of the agent to alter a gene's expression level is evidence that the drug does not affect the pathway of which the gene's expressed protein is a part.

WO 99/58720 provides methods for quantifying the relatedness of a first and second gene expression profile and for ordering the relatedness of a plurality of gene expression profiles. The methods so described permit useful information to be extracted from a greater percentage of the individual gene expression measurements from a microarray than methods previously used in the art.

Other uses of microarrays are described in Gerhold *et al.*, *Trends Biochem. Sci.* 24(5):168-173 (1999) and Zweiger, *Trends Biotechnol.* 17(11):429-436 (1999); Schena et al.

The invention particularly provides genome-derived single-exon probes known to be expressed in placenta. The individual single exon probes can be provided in the form of substantially isolated and purified nucleic acid, typically, but not necessarily, in a quantity sufficient to perform a hybridization reaction.

Such nucleic acid can be in any form directly hybridizable to the message that contains the probe's ORF, such as double stranded DNA, single-stranded DNA complementary to the message, single-stranded RNA complementary to the message, or chimeric DNA/RNA molecules so hybridizable. The nucleic acid can alternatively or additionally include either nonnative nucleotides, alternative internucleotide linkages, or both, so long as complementary binding can be obtained. For example, probes can include phosphorothioates, methylphosphonates, morpholino analogs, and peptide nucleic acids (PNA), as are described, for example, in U.S. Patent Nos. 5,142,047; 5,235,033; 5,166,315; 5,217,866; 5,184,444; 5,861,250.

Usefully, however, such probes are provided in a form and quantity suitable for amplification, where the amplified product is thereafter to be used in the hybridization reactions that probe gene expression. Typically, such probes are provided in a form and quantity suitable for amplification by PCR or by other well known amplification technique. One such technique additional to PCR is rolling circle amplification, as is described, *inter alia*, in U.S. Patent Nos. 5,854,033 and 5,714,320 and international patent publications WO 97/19193 and WO 00/15779. As is well understood, where the probes are to be provided in a form suitable for amplification, the range of nucleic acid analogues and/or internucleotide linkages will be constrained by the requirements and nature of the amplification enzyme.

Where the probe is to be provided in form suitable for amplification, the quantity need not be sufficient for direct hybridization for gene expression analysis, and need be sufficient only to function as an amplification template, typically at least about 1, 10 or 100 pg or more.

Each discrete amplifiable probe can also be packaged with amplification primers, either in a single composition that comprises probe template and primers, or in a kit that comprises such primers separately packaged therefrom. As earlier mentioned, the ORF-specific 5' primers used for genomic amplification can have a first common sequence added thereto, and the ORF-specific 3' primers used for genomic amplification can have a second, different, common sequence added thereto, thus permitting, in this embodiment, the use of a single set of 5' and 3' primers to amplify any one of the probes. The probe composition and/or kit can also include buffers, enzyme, *etc.*, required to effect amplification.

As mentioned earlier, when intended for use on a genome-derived single exon microarray of the present invention, the genome-derived single exon probes of the present invention will typically average at least about 100, 200, 300, 400 or 500 bp in length, including (and typically, but not necessarily centered about) the ORF. Furthermore, when intended for use on a genome-derived single exon microarray of the present invention, the genome-derived single exon probes of the present invention will typically not contain a detectable label.

When intended for use in solution phase hybridization, however – that is, for use in a hybridization reaction in which the probe is not first bound to a support substrate (although the target may indeed be so bound) – length constraints that are imposed in microarray-based hybridization approaches will be relaxed, and such probes will typically be labeled.

In such case, the only functional constraint that dictates the minimum size of such probe is that each such probe must be capable of specifically identifying in a hybridization reaction the exon from which it is drawn. In theory, a probe of as little as 17 nucleotides is capable of uniquely identifying its cognate sequence in the human genome. For hybridization to expressed message – a subset of target sequence that is much reduced in complexity as compared to genomic sequence – even fewer nucleotides are required for specificity.

Therefore, the probes of the present invention can include as few as 20, 25 or 50 bp or ORF, or more. In particular embodiments, the ORF sequences are given in SEQ ID NOS. 13,233 - 26,232, respectively, for probe SEQ ID NOS. 1 - 13,232. The minimum amount of ORF required to be included in the probe of the present invention in order to provide specific signal in either solution phase or microarray-based hybridizations can readily be determined for each of ORF SEQ ID NOS. 13,233 - 26,232 individually by routine experimentation using standard high stringency conditions.

Such high stringency conditions are described, *inter alia*, in Ausubel et al. and Maniatis *et al.* For microarray-based hybridization, standard high stringency conditions can usefully be 50% formamide, 5X SSC, 0.2 µg/µl poly(dA), 0.2 µg/µl human $c_ot1$ DNA, and 0.5 % SDS, in a humid oven at 42°C overnight, followed by successive washes of the microarray in 1X SSC, 0.2% SDS at 55°C for 5 minutes, and then 0.1X SSC, 0.2% SDS, at 55°C for 20 minutes. For solution phase hybridization, standard high stringency conditions can usefully be aqueous hybridization at 65°C in 6X SSC. Lower stringency conditions, suitable for cross-hybridization to mRNA encoding structurally- and functionally-related proteins, can usefully be the same as the high stringency conditions but with reduction in temperature for hybridization and washing to room temperature (approximately 25°C).

When intended for use in solution phase hybridization, the maximum size of the single exon probes of the present invention is dictated by the proximity of other expressed exons in genomic DNA: although each single exon probe can include intergenic and/or intronic material contiguous to the ORF in the human genome, each probe of the present invention will include portions of only one expressed exon.

Thus, each single exon probe will include no more than about 25 kb of contiguous genomic sequence, more typically no more than about 20 kb of contiguous genomic sequence, more usually no more than about 15 kb, even more usually no more than about 10 kb. Usually, probes that are maximally about 5 kb will be used, more typically no more than about 3 kb.

It will be appreciated that the Sequence Listing appended hereto presents, by convention, only that strand of the probe and ORF sequence that can be directly translated reading from 5' to 3' end. As would be well understood by one of skill in the art, single stranded probes must be complementary in sequence to the ORF as present in an mRNA; it is well within the skill in the art to determine such complementary sequence. It will further be understood that double stranded probes can be used in both solution-phase hybridization and microarray-based hybridization if suitably denatured.

Thus, it is an aspect of the present invention to provide single-stranded nucleic acid probes that have sequence complementary to those described herein above and below, and double-stranded probes one strand of which has sequence complementary to the probes described herein.

The probes can, but need not, contain intergenic and/or intronic material that flanks the ORF, on one or both sides, in the same linear relationship to the ORF that the intergenic and/or intronic material bears to the ORF in genomic DNA. The probes do not, however, contain nucleic acid derived from more than one expressed ORF.

And when intended for use in solution hybridization, the probes of the present invention can usefully have detectable labels. Nucleic acid labels are well known in the art, and include, *inter alia*, radioactive labels, such as $^{3}H$, $^{32}P$, $^{33}P$, $^{35}S$, $^{125}I$, $^{131}I$; fluorescent labels, such as Cy3, Cy5, Cy5.5, Cy7, SYBR®

Green and other labels described in Haugland, *Handbook of Fluorescent Probes and Research Chemicals*, 7th ed., Molecular Probes Inc., Eugene, OR (2000), or fluorescence resonance energy transfer tandem conjugates thereof; labels suitable for chemiluminescent and/or enhanced chemiluminescent detection; labels suitable for ESR and NMR detection; and labels that include one member of a specific binding pair, such as biotin, digoxigenin, or the like.

The probes, either in quantity sufficient for hybridization or sufficient for amplification, can be provided in individual vials or containers.

Alternatively, such probes can usefully be packaged as a plurality of such individual genome-derived single exon probes.

When provided as a collection of plural individual probes, the probes are typically made available in amplifiable form in a spatially-addressable ordered set, typically one per well of a microtiter dish. Although a 96 well microtiter plate can be used, greater efficiency is obtained using higher density arrays.

If, as earlier mentioned, the ORF-specific 5' primers used for genomic amplification had a first common sequence added thereto, and the ORF-specific 3' primers used for genomic amplification had a second, different, common sequence added thereto, a single set of 5' and 3' primers can be used to amplify all of the probes from the amplifiable ordered set.

Such collections of genome-derived single exon probes can usefully include a plurality of probes chosen for the common attribute of expression in the human placenta.

In such defined subsets, typically at least 50, 60, 75, 80, 85, 90 or 95% or more of the probes will be chosen by their expression in the defined tissue or cell type.

The single exon probes of the present invention, as well as fragments of the single exon probes comprising selectively hybridizable portions of the probe ORF, can be used to obtain the full length cDNA that includes the ORF by (i) screening of cDNA libraries; (ii) rapid amplification of cDNA ends ("RACE"); or (iii) other conventional means, as are described, *inter alia*, in Ausubel et al. and Maniatis *et al.*

It is another aspect of the present invention to provide genome-derived single exon nucleic acid microarrays useful for gene expression analysis, where the term "microarray" has the meaning given in the definitional section of this description, *supra*.

The invention particularly provides genome-derived single-exon nucleic acid microarrays comprising a plurality of probes known to be expressed in human placenta. In preferred embodiments, the present invention provides human genome-derived single exon microarrays comprising a plurality of probes drawn from the group consisting of SEQ ID NOS.: 1 - 13,232.

When used for gene expression analysis, the genome-derived single exon microarrays provide greater physical informational density than do the genome-derived single exon microarrays that have lower percentages of probes known to be expressed commonly in the tested tissue. At a fixed probe density, for example, a given microarray surface area of the defined subset genome-derived single exon microarray can yield a greater number of expression measurements. Alternatively, at a given probe density, the same number of expression measurements can be obtained from a smaller substrate surface area. Alternatively, at a fixed probe density and fixed surface area, probes can be provided redundantly, providing greater reliability in signal measurement for any given probe. Furthermore, with a higher percentage of probes known to be expressed in the assayed tissue, the dynamic range of the detection means can be adjusted to reveal finer levels discrimination among the levels of expression.

Although particularly described with respect to their utility as probes of gene expression, particularly as probes to be included on a genome-derived single exon microarray, each of the nucleic acids having SEQ ID NOS.: 1 - 13,232 contains an open-reading frame, set forth respectively in SEQ ID NOS.: 13,233 - 26,232, that encodes a protein domain. Thus, each of SEQ ID NOS. 1 - 13,232 can be used, or that portion thereof in SEQ ID NOS. 13,233 - 26,232 used, to express a protein domain by standard *in vitro* recombinant techniques. See Ausubel et al. and Maniatis *et al.*

Additionally, kits are available commercially that readily permit such nucleic acids to be expressed as protein in bacterial cells, insect cells, or mammalian cells, as desired (*e.g.*, HAT™ Protein Expression & Purification System, ClonTech Laboratories, Palo Alto, CA;

Adeno-X™ Expression System, ClonTech Laboratories, Palo Alto, CA; Protein Fusion & Purification (pMAL™) System, New England Biolabs, Beverley, MA)

Furthermore, shorter peptides can be chemically synthesized using commercial peptide synthesizing equipment and well known techniques. Procedures are described, *inter alia*, in Chan *et al*. (eds.), Fmoc Solid Phase Peptide Synthesis: A Practical Approach (Practical Approach Series, (Paper)), Oxford Univ. Press (March 2000) (ISBN: 0199637245); Jones, Amino Acid and Peptide Synthesis (Oxford Chemistry Primers, No 7) , Oxford Univ. Press (August 1992) (ISBN: 0198556683); and Bodanszky, Principles of Peptide Synthesis (Springer Laboratory), Springer Verlag (December 1993) (ISBN: 0387564314).

It is, therefore, another aspect of the invention to provide peptides comprising an amino acid sequence translated from SEQ ID NOS.: 13,233 - 26,232. Such amino acid sequences are set out in SEQ ID NOS: 26,233 - 38,837. Any such recombinantly-expressed or synthesized peptide of at least 8, and preferably at least about 15, amino acids, can be conjugated to a carrier protein and used to generate antibody that recognizes the peptide. Thus, it is a further aspect of the invention to provide peptides that have at least 8, preferably at least 15, consecutive amino acids.

The following examples are offered by way of illustration and not by way of limitation.

## EXAMPLE 1

## Preparation of Single Exon Microarrays from ORFs Predicted in Human Genomic Sequence

### Bioinformatics Results

All human BAC sequences in fewer than 10 pieces that had been accessioned in a five month period immediately preceding this study were downloaded from GenBank. This corresponds to ~2200 clones, totaling ~350 MB of sequence, or approximately 10% of the human genome.

After masking repetitive elements using the program CROSS_MATCH, the sequence was analyzed for open reading frames using three separate gene finding programs. The three programs predict genes using independent algorithmic methods developed on independent training sets: GRAIL uses a neural network, GENEFINDER uses a hidden Markoff model, and DICTION, a program proprietary to Genetics Institute, operates according to a different heuristic. The results of all three programs were used to create a prediction matrix across the segment of genomic DNA.

The three gene finding programs yielded a range of results. GRAIL identified the greatest percentage of genomic sequence as putative coding region, 2% of the data analyzed. GENEFINDER was second, calling 1%, and DICTION yielded the least putative coding region, with 0.8% of genomic sequence called as coding region.

The consensus data were as follows. GRAIL and GENEFINDER agreed on 0.7% of genomic sequence, GRAIL and DICTION agreed on 0.5% of genomic sequence, and the three programs together agreed on 0.25% of the data analyzed. That is, 0.25% of the genomic sequence was identified by all three of the programs as containing putative coding region.

ORFs predicted by any two of the three programs ("consensus ORFs") were assorted into "gene bins" using two criteria: (1) any 7 consecutive exons within a 25 kb window were placed together in a bin as likely contributing to a single gene, and (2) all ORFs within a 25 kb window were placed together in a bin as likely contributing to a single gene if fewer than 7 exons were found within the 25 kb window.

PCR

The largest ORF from each gene bin that did not span repetitive sequence was then chosen for amplification, as were all consensus ORFs longer than 500 bp. This method approximated one exon per gene; however, a number of genes were found to be represented by multiple elements.

Previously, we had determined that DNA fragments fewer than 250 bp in length do not bind well to the amino-modified glass surface of the slides used as support substrate for construction of microarrays; therefore, amplicons were designed in the present experiments to approximate 500 bp in length.

Accordingly, after selecting the largest ORF per gene bin, a 500 bp fragment of sequence centered on the ORF was passed to the primer picking software, PRIMER3 (available online for use at http://www-genome.wi.mit.edu/cgi-bin/primer/ ). A first additional sequence was commonly added to each ORF-unique 5' primer, and a second, different, additional sequence was commonly added to each ORF-unique 3' primer, to permit subsequent reamplification of the amplicon using a single set of "universal" 5' and 3' primers, thus immortalizing the amplicon. The addition of universal priming sequences also facilitates sequence verification, and can be used to add a cloning site should some ORFs be found to warrant further study.

The ORFs were then PCR amplified from genomic DNA, verified on agarose gels, and sequenced using the universal primers to validate the identity of the amplicon to be spotted in the microarray.

Primers were supplied by Operon Technologies (Alameda, CA). PCR amplification was performed by standard techniques using human genomic DNA (Clontech, Palo Alto, CA) as template. Each PCR product was verified by SYBR® green (Molecular Probes, Inc., Eugene, OR) staining of agarose gels, with subsequent imaging by Fluorimager (Molecular Dynamics, Inc., Sunnyvale, CA). PCR amplification was classified as successful if a single band appeared.

The success rate for amplifying ORFs of interest directly from genomic DNA using PCR was approximately 75%. FIG. 5 graphs the distribution of predicted ORF (exon) length and distribution of amplified PCR products, with ORF length shown in red and PCR product length shown in blue (which may appear black in the figure). Although the range of ORF sizes is readily seen to extend to beyond 900 bp, the mean predicted exon size was only 229 bp, with a median size of 150 bp (n=9498). With an average amplicon size of 475 ± 25 bp, approximately 50% of the average PCR amplification product contained predicted coding region, with the remaining 50% of the amplicon containing either intron, intergenic sequence, or both.

Using a strategy predicated on amplifying about 500 bp, it was found that long exons had a higher PCR failure rate. To address this, the bioinformatics process was adjusted to amplify 1000, 1500 or 2000 bp fragments from exons larger than 500 bp. This improved the rate of successful amplification of exons exceeding 500 bp, constituting about 9.2% of the exons predicted by the gene finding algorithms.

Approximately 75% of the probes disposed on the array (90% of those that successfully PCR amplified) were sequence-verified by sequencing in both the forward and reverse direction using MegaBACE sequencer (Molecular Dynamics, Inc., Sunnyvale, CA), universal primers, and standard protocols.

Some genomic clones (BACs) yielded very poor PCR and sequencing results. The reasons for this are unclear, but may be related to the quality of early draft sequence or the inclusion of vector and host contamination in some submitted sequence data.

Although the intronic and intergenic material flanking coding regions could theoretically interfere with hybridization during microarray experiments, subsequent empirical results demonstrated that differential expression ratios were not significantly affected by the presence of noncoding sequence. The variation in exon size was similarly found not to affect differential expression ratios significantly; however, variation in exon size was observed to affect the absolute signal intensity (data not shown).

The 350 MB of genomic DNA was, by the above-described process, reduced to 9750 discrete probes, which were spotted in duplicate onto glass slides using commercially available instrumentation (MicroArray GenII Spotter and/or MicroArray GenIII Spotter, Molecular Dynamics, Inc., Sunnyvale, CA). Each slide additionally included either 16 or 32 *E. coli* genes, the average hybridization signal of which was used as a measure of background biological noise.

Each of the probe sequences was BLASTed against the human EST data set, the NR data set, and SwissProt GenBank (May 7, 1999 release 2.0.9).

One third of the probe sequences (as amplified) produced an exact match (BLAST Expect ("E") values less than 1 $e^{-100}$) to either an EST (20% of sequences) or a known mRNA (13% of sequences). A further 22% of the probe sequences showed some homology to a known EST or mRNA (BLAST E values from 1 $e^{-5}$ to 1 $e^{-99}$). The remaining 45% of the probe sequences showed no significant sequence homology to any expressed, or potentially expressed, sequences present in public databases.

All of the probe sequences (as amplified) were then analyzed for protein similarities with the SwissProt database using BLASTX, Gish *et al.*, *Nature Genet.* 3:266 (1993). The predicted functional breakdowns of the 2/3 of probes identical or homologous to known sequences are presented in Table 1.

Table 1

Function of Predicted ORFs As Deduced From Comparative Sequence Analysis

| Total | V6 chip | V7 chip | Function Predicted from Comparative Sequence Analysis |
|---|---|---|---|
| 211 | 96 | 115 | Receptor |
| 120 | 43 | 77 | Zinc Finger |
| 30 | 11 | 19 | Homeobox |
| 25 | 9 | 16 | Transcription Factor |
| 17 | 11 | 7 | Transcription |
| 118 | 57 | 61 | Structural |
| 95 | 39 | 56 | Kinase |
| 36 | 18 | 18 | Phosphatase |
| 83 | 31 | 52 | Ribosomal |
| 45 | 19 | 26 | Transport |
| 21 | 17 | 14 | Growth Factor |
| 17 | 12 | 5 | Cytochrome |
| 50 | 33 | 17 | Channel |

As can be seen, the two most common types of genes were transcription factors and receptors, making up 2.2% and 1.8% of the arrayed elements, respectively.

## EXAMPLE 2

Gene Expression Measurements From Genome-Derived Single

Exon Microarrays

The two genome-derived single exon microarrays prepared according to Example 1 were hybridized in a series of simultaneous two-color fluorescence experiments to (1) Cy3-labeled cDNA synthesized from message drawn individually from each of brain, heart, liver, fetal liver, placenta, lung, bone marrow, HeLa, BT 474, or HBL 100 cells, and (2) Cy5-labeled cDNA prepared from message pooled from all ten tissues and cell types, as a control in each of the measurements. Hybridization and scanning were carried out using standard protocols and Molecular Dynamics equipment.

Briefly, mRNA samples were bought from commercial sources (Clontech, Palo Alto, CA and Amersham Pharmacia Biotech (APB)). Cy3-dCTP and Cy5-dCTP (both from APB) were incorporated during separate reverse transcriptions of 1 µg of polyA$^+$ mRNA performed using 1 µg oligo(dT)12-18 primer and 2 µg random 9mer primers as follows. After heating to 70°C, the RNA:primer mixture was snap cooled on ice. After snap cooling on ice, added to the RNA to the stated final concentration was: 1X Superscript II buffer, 0.01 M DTT, 100µM dATP, 100 µM dGTP, 100 µM dTTP, 50 µM dCTP, 50 µM Cy3-dCTP or Cy5-dCTP 50 µM, and 200 U Superscript II enzyme. The reaction was incubated for 2 hours at 42°C. After 2 hours, the first strand cDNA was isolated by adding 1 U Ribonuclease H, and incubating for 30 minutes at 37°C. The reaction was then purified using a Qiagen PCR cleanup column, increasing the number of ethanol washes to 5. Probe was eluted using 10 mM Tris pH 8.5.

Using a spectrophotometer, probes were measured for dye incorporation. Volumes of both Cy3 and Cy5 cDNA corresponding to 50 pmoles of each dye were then dried in a Speedvac, resuspended in 30 µl hybridization solution containing 50% formamide, 5X SSC, 0.2 μg/μl poly(dA), 0.2 μg/μl human $c_ot1$ DNA, and 0.5 % SDS.

Hybridizations were carried out under a coverslip, with the array placed in a humid oven at 42°C overnight. Before scanning, slides were washed in 1X SSC, 0.2% SDS at 55°C for 5 minutes, followed by 0.1X SSC, 0.2% SDS, at 55°C for 20 minutes. Slides were briefly dipped in water and dried thoroughly under a gentle stream of nitrogen.

Slides were scanned using a Molecular Dynamics Gen3 scanner, as described. Schena (ed.), Microarray Biochip: Tools and Technology, Eaton Publishing Company/BioTechniques Books Division (2000) (ISBN: 1881299376).

Although the use of pooled cDNA as a reference permitted the survey of a large number of tissues, it attenuates the measurement of relative gene expression, since every highly expressed gene in the tissue/cell type-specific fluorescence channel will be present to a level of at least 10% in the control channel. Because of this fact, both signal and expression ratios (the latter hereinafter, "expression" or "relative expression") for each probe were normalized using the average ratio or average signal, respectively, as measured across the whole slide.

Data were accepted for further analysis only when signal was at least three times greater than biological noise, the latter defined by the average signal produced by the *E. coli* control genes.

The relative expression signal for these probes was then plotted as function of tissue or cell type, and is presented in FIG. 6.

FIG. 6 shows the distribution of expression across a panel of ten tissues. The graph shows the number of sequence-verified products that were either not expressed ("0"), expressed in one or more but not all tested tissues ("1" - "9"), and expressed in all tissues tested ("10").

Of 9999 arrayed elements on the two microarrays (including positive and negative controls and "failed" products), 2353 (51%) were expressed in at least one tissue or cell type. Of the gene elements showing significant signal – where expression was scored as "significant" if the normalized Cy3 signal was greater than 1, representing signal 5-fold over biological noise (0.2) – 39% (991) were expressed in all 10 tissues. The next most common class (15%) consisted of gene elements expressed in only a single tissue.

The genes expressed in a single tissue were further analyzed, and the results of the analyses are compiled in FIG. 7.

FIG. 7A is a matrix presenting the expression of all verified sequences that showed expression greater than 3 in at least one tissue. Each clone is represented by a column in the matrix. Each of the 10 tissues assayed is represented by a separate row in the matrix, and relative expression of a clone in that tissue is indicated at the respective node by intensity of green shading, with the intensity legend shown in panel B. The top row of the matrix ("EST Hit") contains "bioinformatic" rather than "physical" expression data – that is, presents the results returned by query of EST, NR and SwissProt databases using the probe sequence. The legend for "bioinformatic expression" (*i.e.*, degree of homology returned) is presented in panel C. Briefly, white is known, black is novel, with gray depicting nonidentical with significant homology (white: E values < 1e-100; gray: E values from 1e-05 to 1e-99; black: E values > 1e-05).

As FIG. 7 readily shows, heart and brain were demonstrated to have the greatest numbers of genes that were shown to be uniquely expressed in the respective tissue. In brain, 200 uniquely expressed genes were identified; in heart, 150. The remaining tissues gave the following figures for uniquely expressed genes: liver, 100; lung, 70; fetal liver, 150; bone marrow, 75; placenta, 100; HeLa, 50; HBL, 100; and BT474, 50.

It was further observed that there were many more "novel" genes among those that were up-regulated in only one tissue, as compared with those that were down-regulated in only one tissue. In fact, it was found that ORFs whose expression was measurable in only a single of the tested tissues were represented in sequencing databases at a rate of only 11%, whereas 36% of the ORFs whose expression was measurable in 9 of the tissues were present in public databases. As for those ORFs expressed in all ten tissues, fully 45% were present in existing expressed sequence databases. These results are not unexpected, since genes expressed in a greater number of tissues have a higher likelihood of being, and thus of having been, discovered by EST approaches.

## Comparison of Signal from Known and Unknown Genes

The normalized signal of the genes found to have high homology to genes present in the GenBank human EST database were compared to the normalized signal of those genes not found in the GenBank human EST database. The data are shown in FIG. 8.

FIG. 8 shows the normalized Cy3 signal intensity for all sequence-verified products with a BLAST Expect ("E") value of greater than 1e-30 (designated "unknown") upon query of existing EST, NR and SwissProt databases, and shows in blue the normalized Cy3 signal intensity for all sequence-verified products with a BLAST Expect value of less than 1e-30 ("known"). Note that biological background noise has an averaged normalized Cy3 signal intensity of 0.2.

As expected, the most highly expressed of the ORFs were "known" genes. This is not surprising, since very high signal intensity correlates with very commonly-expressed genes, which have a higher likelihood of being found by EST sequence.

However, a significant point is that a large number of even the high expressers were "unknown". Since the genomic approach used to identify genes and to confirm their expression does not bias exons toward either the 3' or 5' end of a gene, many of these high expression genes will not have been detected in an end-sequenced cDNA library.

The significant point is that presence of the gene in an EST database is *not* a prerequisite for incorporation into a genome-derived microarray, and further, that arraying such "unknown" exons can help to assign function to as-yet undiscovered genes.

Verification of Gene Expression

To ascertain the validity of the approach described above to identify genes from raw genomic sequence, expression of two of the probes was assayed using reverse transcriptase polymerase chain reaction (RT PCR) and northern blot analysis.

Two microarray probes were selected on the basis of exon size, prior sequencing success, and tissue-specific gene expression patterns as measured by the microarray experiments. The primers originally used to amplify the two respective ORFs from genomic DNA were used in RT PCR against a panel of tissue-specific cDNAs (Rapid-Scan gene expression panel 24 human cDNAs) (OriGene Technologies, Inc., Rockville, MD).

Sequence AL079300_1 was shown by microarray hybridization to be present in cardiac tissue, and sequence AL031734_1 was shown by microarray experiment to be present in placental tissue (data not shown). RT-PCR on these two sequences confirmed the tissue-specific gene expression as measured by microarrays, as ascertained by the presence of a correctly sized PCR product from the respective tissue type cDNAs.

Clearly, all microarray results cannot, and indeed should not, be confirmed by independent assay methods, or the high throughput, highly parallel advantages of microarray hybridization assays will be lost. However, in addition to the two RT-PCR results presented above, the observation that 1/3 of the arrayed genes exist in expression databases provides powerful confirmation of the power of our methodology – which combines bioinformatic prediction with expression confirmation using genome-derived single exon microarrays – to identify novel genes from raw genomic data.

To verify that the approach further provides correct characterization of the expression patterns of the identified genes, a detailed analysis was performed of the microarrayed sequences that showed high signal in brain.

For this latter analysis, sequences that showed high (normalized) signal in brain, but which showed very low (normalized) signal (less than 0.5, determined to be biological noise) in all other tissues, were further studied. There were 82 sequences that fit these criteria, approximately 2% of the arrayed elements. The 10 sequences showing the highest signal in brain in microarray hybridizations are detailed in Table 2, along with assigned function, if known or reasonably predicted.

Table 2

| Function of the Most Highly Expressed Genes Expressed Only in Brain |
|---|

| Microarray Sequence Name | Normalized Signal | Expression Ratio | Homology to EST present in GenBank | Gene Function as described by GenBank |
|---|---|---|---|---|
| AP000217-1 | 5.2 | +7.7 | High | S-100 protein, b-chain, $Ca^{2+}$ binding protein expressed in central nervous system |
| AP000047-1 | 2.3 | | High | Unknown Function |
| AC006548-9 | 1.7 | | High | Similar to mouse membrane glyco-protein M6, expressed in central nervous system |
| AC007245-5 | 1.5 | | High | Similar to amphiphysin, a synaptic vesicle-associated protein. Ref 21 |
| L44140-4 | 1.2 | +2.0 | High | Endothelial actin-binding protein found in nonmuscle filamin |
| AC004689-9 | 1.2 | +3.5 | High | Protein Phosphatase PP2A, neuronal/ downregulates |

| | | | | |
|---|---|---|---|---|
| | | | | activated protein kinases |
| AL031657-1 | 1.2 | +3.0 | High | Unknown function/ Contains the anhyrin motif, a common protein sequence motif |
| AC009266-2 | 1.1 | +3.7 | Low | Low homology to the Synaptotagmin I protein in rat/present at low levels throughout rat brain |
| AP000086-1 | 1.0 | +2.7 | Low | Unknown, very poor homology to collagen |
| AC004689-3 | 1.0 | | High | Protein Phosphatase PP2A, neuronal/ downregulates activated protein kinases |

Of the ten sequences studied by these latter confirmatory approaches, eight were previously known. Of these eight, six had previously been reported to be important in the central nervous system or brain. The exon giving the highest signal (AP00217-1) was found to be the gene encoding an S100B $Ca^{2+}$ binding protein, reported in the literature to be highly and uniquely expressed in the central nervous system. Heizmann, *Neurochem. Res.* 9:1097

(1997).

A number of the brain-specific probe sequences (including AC006548-9, AC009266-2) did not have homology to any known human cDNAs in GenBank but did show homology to rat and mouse cDNAs. Sequences AC004689-9 and AC004689-3 were both found to be phosphatases present in neurons (Millward *et al.*, *Trends Biochem. Sci.* 24(5):186-191 (1999)). Two microarray sequences, AP000047-1 and AP000086-1 have unknown function, with AP000086-1 being absent from GenBank. Functionality can now be narrowed down to a role in the central nervous system for both of these genes, showing the power of designing microarrays in this fashion.

Next, the function of the chip sequences with the highest (normalized) signal intensity in brain, regardless of expression in other tissues, was assessed. In this latter analysis, we found expression of many more common genes, since the sequences were not limited to those expressed only in brain. For example, looking at the 20 highest signal intensity spots in brain, 4 were similar to tubulin (AC00807905; AF146191-2; AC007664-4; AF14191-2), 2 were similar to actin (AL035701-2; AL034402-1), and 6 were found to be homologous to glyceraldehyde-3-phosphate dehydrogenase (GAPDH) (AL035604-1; Z86090-1; AC006064-L, AC006064-K; AC035604-3; AC006064-L). These genes are often used as controls or housekeeping genes in microarray experiments of all types.

Other interesting genes highly expressed in brain were a ferritin heavy chain protein, which is reported in the literature to be found in brain and liver (Joshi *et al.*, *J. Neurol. Sci.* 134(Suppl):52-56 (1995)), a result duplicated with the array. Other highly expressed chip sequences included a translation elongation factor 1□ (AC007564-4), a DEAD-box homolog (AL023804-4), and a Y-chromosome RNA-binding motif (Chai *et al.*, *Genomics*

49(2):283-89 (1998))(AC007320-3). A low homology analog (AP00123-1/2) to a gene, DSCR1, thought to be involved in trisomy 21 (Down's syndrome), showed high expression in both brain and heart, in agreement with the literature (Fuentes *et al.*, *Mol. Genet.* 4(10):1935-44 (1995)).

As a further validation of the approach, we selected the BAC AC006064 to be included on the array. This BAC was known to contain the GAPDH gene, and thus could be used as a control for the ORF selection process. The gene finding and exon selection algorithms resulted in choosing 25 exons from BAC AC006064 for spotting onto the array, of which four were drawn from the GAPDH gene. Table 3 shows the comparison of the average expression ratio for the 4 exons from BAC006064 compared with the average expression ratio for 5 different dilutions of a commercially available GAPDH cDNA (Clontech).

Table 3

Comparison of Expression Ratio, for each tissue, of GAPDH

| | AC006064 (n = 4) | Control ( n = 5) |
|---|---|---|
| Bone Marrow | -1.81 ± 0.11 | -1.85 ± 0.08 |
| Brain | -1.41 ± 0.11 | -1.17 ± 0.05 |
| BT474 | 1.85 ± 0.09 | 1.66 ± 0.12 |
| Fetal Liver | -1.62 ± 0.07 | -1.41 ± 0.05 |
| HBL100 | 1.32 ± 0.05 | 2.64 ± 0.12 |
| Heart | 1.16 ± 0.09 | 1.56 ± 0.10 |
| HeLa | 1.11 ±0.06 | 1.30 ± 0.15 |
| Liver | -1.62 ± 0.22 | -2.07 ± |
| Lung | -4.95 ± 0.93 | -3.75 ± 0.21 |
| Placenta | -3.56 ± 0.25 | -3.52 ± 0.43 |

Each tissue shows excellent agreement between the experimentally chosen exons and the control, again demonstrating the validity of the present exon mining approach. In addition, the data also show the variability of expression of GAPDH within tissues, calling into question its classification as a housekeeping gene and utility as a housekeeping control in microarray experiments.

## EXAMPLE 3

## Representation of Sequence and Expression Data as a "Mondrian"

For each genomic clone processed for microarray as above-described, a plethora of information was accumulated, including full clone sequence, probe sequence within the clone, results of each of the three gene finding programs, EST information associated with the probe sequences, and microarray signal and expression for multiple tissues, challenging our ability to display the information.

Accordingly, we devised a new tool for visual display of the sequence with its attendant annotation which, in deference to its visual similarity to the paintings of Piet Mondrian, is hereinafter termed a "Mondrian". FIGS. 3 and 4 present the key to the information presented on a Mondrian.

FIG. 9 presents a Mondrian of BAC AC008172 (bases 25,000 to 130,000 shown), containing the carbamyl phosphate synthetase gene (AF154830.1). Purple background within the region shown as field 81 in FIG. 3 indicates all 37 known exons for this gene.

As can be seen, GRAIL II successfully identified 27 of the known exons (73%), GENEFINDER successfully identified 37 of the known exons (100%), while DICTION identified 7 of the known exons (19%).

Seven of the predicted exons were selected for physical assay, of which 5 successfully amplified by PCR and were sequenced. These five exons were all found to be from the same gene, the carbamyl phosphate synthetase gene (AF154830.1).

The five exons were arrayed, and gene expression measured across 10 tissues. As is readily seen in the Mondrian, the five chip sequences on the array show identical expression patterns, elegantly demonstrating the reproducibility of the system.

FIG. 10 is a Mondrian of BAC AL049839. We selected 12 exons from this BAC, of which 10 successfully sequenced, which were found to form between 5 and 6 genes. Interestingly, 4 of the genes on this BAC are protease inhibitors. Again, these data elegantly show that exons selected from the same gene show the same expression patterns, depicted below the red line. From this figure, it is clear that our ability to find known genes is very good. A novel gene is also found from 86.6 kb to 88.6 kb, upon which all the exon finding programs agree. We are confident we have two exons from a single gene since they show the same expression patterns and the exons are proximal to each other. Backgrounds in the following colors indicate a known gene (top to bottom):
red = kallistatin protease inhibitor (P29622);
purple = plasma serine protease inhibitor (P05154);
turquoise = α1 anti-chymotrypsin (P01011); mauve = 40S ribosomal protein (P08865). Note that chip sequence 8 and 12 did not sequence verify.

## EXAMPLE 4

## Genome-Derived Single Exon Probes Useful For Measuring Human Gene Expression

The protocols set forth in Examples 1 and 2, *supra*, were applied to additional human genomic sequence as it became newly available in GenBank to identify unique exons in the human genome that could be shown to be expressed at significant levels in placenta tissue.

These unique exons are within longer probe sequences. Each probe was completely sequenced on both strands prior to its use on a genome-derived single exon microarray; sequencing confirms the exact chemical structure of each probe. An added benefit of sequencing is that it placed us in possession of a set of single base-incremented fragments of the sequenced nucleic acid, starting from the sequencing primer 3' OH. (Since the single exon probes were first obtained by PCR amplification from genomic DNA, we were of course additionally in possession of an even larger set of single base incremented fragments of each of the 13,232 single exon probes, each fragment corresponding to an extension product from one of the two amplification primers.)

The structures of the 13,232 unique single exon probes are clearly presented in the Sequence Listing as SEQ ID Nos.: 1 - 13,232 . The 16 nt 5' primer sequence and 16 nt 3' primer sequence present on the amplicon are not included in the sequence listing. The sequences of the exons present within each of these probes is presented in the Sequence Listing as SEQ ID Nos.: 13,233 - 26,232, respectively. It will be noted that some amplicons have more than one exon, some exons are contained in more than one amplicon.

As detailed in Example 2, expression was demonstrated by disposing the amplicons as single exon probes on nucleic acid microarrays and then performing two-color fluorescent hybridization analysis; significant expression is based on a statistical confidence that the signal is significantly greater than negative biological control spots. The negative biological control is formed from spotted DNA sequences from a different species. Here, 32 sequences from E.Coli were spotted in duplicate to give a total of 64 spots.

For each hybridisation (each slide, each colour) the median value of the signal from all of the spots is determined. The normalised signal value is the arithmetic mean of the signal from duplicate spots divided by the population median.

Control spots are eliminated if there is more that a five-fold difference between each one of the duplicate spots raw signals.

The median of the signal from the remaining control spots is calculated and all subsequent calculations are done with normalised signals.

Control spots having a signal of greater than median + 2.4 (the value 2.4 is roughly 12 times the observed standard deviation of control spot populations) are eliminated. Spots with such high signals are considered to be "outliers".

The mean and standard deviation of the modified control spot populations are calculated.

The mean + 3x the standard deviation (mean + (3*SD)) is used as the signal threshold qualifier for that particular hybridisation. Thus, individual thresholds are determined for each channel and each hybridisation.

This means that, assuming that the data is distributed normally, there is a 99% confidence that any signal exceeding the threshold is significant.

The probes and their expression data are presented in Table 4, set forth respectively in Example 5. Example 5 presents the subset of probes that is significantly expressed in the human placenta and thus presents the subset of probes that was recognized to be useful for measuring expression of their cognate genes in human placenta tissue.

The sequence of each of the exon probes identified by SEQ ID NOS.: 13,233 - 26,232 was individually used as a BLAST (or, for SWISSPROT, BLASTX) query to identify the most similar sequence in each of dbEST, SwissProt (BLASTX), and NR divisions of GenBank. Because the query sequences are themselves derived from genomic sequence in GenBank, only nongenomic hits from NR were scored.

The smallest in value of the BLAST (or BLASTX) expect ("E") scores for each query sequence across the three database divisions was used as a measure of the "expression novelty" of the probe's ORF. Table 4 is sorted in descending order based on this measure, reported as "Most Similar (top) Hit BLAST E Value". Those sequences for which no "Hit E Value" is listed are those exons which were found to have no similar sequences.

As sorted, Table 4 thus lists its respective probes (by "AMPLICON SEQ ID NO.:" and additionally by the SEQ ID NO:. of the exon contained within the probe:"EXON SEQ ID NO.:") from least similar to sequences known to be expressed (*i.e.*, highest BLAST E value), at the beginning of the table, to most similar to sequences known to be expressed (*i.e.*, lowest BLAST E value), at the bottom of the table.

Table 4 further provides, for each listed probe, the accession number of the database sequence that yielded the "Most Similar (top) Hit BLAST E Value", along with the name of the database in which the database sequence is found ("Top Hit Database Source").

Table 4 further provides SEQ ID NOS. corresponding to the predicted amino acid sequences where they have been determined for the probe and exon nucleotide sequences. These are set out as PEPTIDE SEQ ID NOS.:. The peptide sequences for a given exon are predicted as follows: Since each chip exon is a consensus sequence drawn from predictions from various exon finding programs (i.e. Grail, GeneFinder and GenScan), the multiple initial ORFs are first determined in a uniform way according to each prediction. In particular, the reading frame for predicting the first amino acid in the peptide sequence always starts with the first base of any codon and ends with the last base of non-termination codon. Next, for each strand of the exon, initial ORFs are merged into one or more final ORFs in an exhaustive process based on the following criteria: 1) the merging ORFs must be overlapping, and 2) the merging ORFs must be in the same frame.

The Sequence Listing, which is a superset of all of the data presented in Table 4, further includes, for each probe, the most similar hit, with accession number and BLAST E value, from the each of the three queried databases.

Table 4 further lists, for each probe, a portion of the descriptor for the top hit ("Top Hit Descriptor") as provided in the sequence database. For those ORFs that are similar in sequence, but nonidentical to known sequences (*e.g.*, those with BLAST E values between about 1e-05 and 1e-100), the descriptor reveals the likely function of the protein encoded by the probe's ORF.

Using BLAST E value cutoffs of 1e-05 (*i.e.*, $1 \times 10^{-5}$) and 1e-100 (*i.e.*, $1 \times 10^{-100}$) as evidence of similarity to sequences known to be expressed is of course arbitrary: in Example 2, *supra*, a BLAST E value of 1e-30 was used as the boundary when only two classes were to be defined for analysis (unknown, >1e-30; known <1e-30) (see also FIG. 8). Furthermore, even when the "Most Similar (Top) Hit BLAST E Value" is low, *e.g.*, less than about 1e-100 – which is probative evidence that the query sequence has previously been shown to be expressed – the top hit is highly unlikely exactly to match the probe sequence.

First, such expression entries typically will not have the intronic and/or intergenic sequence present within the single exon probes listed in the Table. Second, even the ORF itself is unlikely in such cases to be present identically in the databases, since most of the EST and mRNA clones in existing databases include multiple exons, without any indication of the location of exon boundaries.

As noted, the data presented in Table 4 represent a proper subset of the data present within the attached sequence listing. For each amplicon probe (SEQ ID NOs.: 1 - 13,232) and probe exon (SEQ ID NOs.: 13,233 - 26,232, respectively), the sequence listing further provides, through iterated annotation fields <220> and <223>:

(a) the accession number of the BAC from which the sequence was derived ("MAP TO"), thus providing a link to the chromosomal map location and other information about the genomic milieu of the probe sequence;

(b) the most similar sequence provided by BLAST query of the EST database, with accession number and BLAST E value for the "hit";

(c) the most similar sequence provided by BLAST query of the GenBank NR database, with accession number and BLAST E value for the "hit"; and

(d) the most similar sequence provided by BLASTX query of the SWISSPROT database, with accession number and BLAST E value for the "hit".

## EXAMPLE 5

## Genome-Derived Single Exon Probes Useful For Measuring Expression of Genes in Human Placenta

Table 4 (550 pages) presents expression, homology, and functional information for the genome-derived single exon probes that are expressed significantly in human placenta.

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 463 | 13658 | 26695 | 6 | | | | |
| 912 | 14087 | 27162 | 9.68 | | | | |
| 1070 | 14236 | | 3.01 | | | | |
| 1330 | 14487 | 27555 | 10.9 | | | | |
| 1645 | 14797 | 27882 | 1.92 | | | | |
| 1666 | 14818 | 27901 | 4.94 | | | | |
| 1764 | 14913 | 28008 | 1.03 | | | | |
| 1788 | 14937 | 28030 | 1.67 | | | | |
| 1794 | 14943 | 28036 | 8.53 | | | | |
| 1939 | 15082 | 28183 | 1.57 | | | | |
| 2034 | 15176 | 28285 | 2.66 | | | | |
| 2234 | 15368 | 28497 | 3.39 | | | | |
| 2353 | 15484 | 28616 | 2.53 | | | | |
| 3255 | 16429 | 29447 | 3.75 | | | | |
| 3537 | 16702 | 29713 | 1.48 | | | | |
| 3604 | 16768 | 29783 | 10.5 | | | | |
| 3651 | 16814 | | 0.84 | | | | |
| 3747 | 16908 | 29912 | 0.98 | | | | |
| 4057 | 17213 | | 0.94 | | | | |
| 4314 | 17457 | 30445 | 1.55 | | | | |
| 4377 | 17520 | 30500 | 6.88 | | | | |
| 4396 | 17539 | 30519 | 0.87 | | | | |
| 4396 | 17539 | 30520 | 0.87 | | | | |
| 4457 | 17597 | | 1.69 | | | | |
| 4512 | 17651 | 30639 | 0.61 | | | | |
| 4958 | 18088 | 31064 | 1.86 | | | | |
| 5002 | 18131 | | 0.6 | | | | |
| 5157 | 18279 | 31244 | 5.14 | | | | |
| 5168 | 18290 | 31255 | 1.24 | | | | |
| 5371 | 18574 | 31442 | 1.76 | | | | |
| 5371 | 18574 | 31443 | 1.76 | | | | |
| 5538 | 18735 | | 4.12 | | | | |
| 5714 | 18907 | | 7.26 | | | | |
| 5796 | 18735 | | 3.31 | | | | |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5858 | 19048 | 32354 | 4.22 | | | | |
| 6146 | 25820 | 32668 | 1.61 | | | | |
| 6174 | 19350 | 32696 | 1.92 | | | | |
| 6546 | 19708 | | 1.01 | | | | |
| 6679 | 19838 | 33226 | 1.25 | | | | |
| 6679 | 19838 | 33227 | 1.25 | | | | |
| 7275 | 20358 | 33812 | 1.42 | | | | |
| 7276 | 20358 | 33813 | 1.42 | | | | |
| 7569 | 20641 | 34117 | 1.18 | | | | |
| 7569 | 20641 | 34118 | 1.18 | | | | |
| 8251 | 21333 | 34851 | 1.44 | | | | |
| 8682 | 21762 | 35296 | 1.14 | | | | |
| 9061 | 22140 | 35684 | 0.76 | | | | |
| 9061 | 22140 | 35685 | 0.76 | | | | |
| 9734 | 22799 | 36373 | 3.82 | | | | |
| 9968 | 23007 | 36602 | 0.56 | | | | |
| 10086 | 23124 | 36725 | 1.51 | | | | |
| 10229 | 23264 | 36853 | 0.88 | | | | |
| 10643 | 23677 | 37286 | 0.74 | | | | |
| 10643 | 23677 | 37287 | 0.74 | | | | |
| 10922 | 24005 | | 2.32 | | | | |
| 11280 | 24346 | | 1.76 | | | | |
| 11348 | 24410 | 38063 | 2.79 | | | | |
| 11641 | 24721 | 38414 | 1.73 | | | | |
| 11749 | 23935 | 37561 | 1.36 | | | | |
| 11749 | 23935 | 37562 | 1.36 | | | | |
| 11792 | 24782 | | 2.09 | | | | |
| 12057 | 25038 | 38746 | 1.56 | | | | |
| 12623 | 25419 | | 2.06 | | | | |
| 12967 | 25628 | 31980 | 1.5 | | | | |
| 6177 | 19353 | 32700 | 16.82 | 9.9E+00 | AJ239028.1 | NT | Homo sapiens LSS gene, partial, exons 15, 16, 17 and 18 |
| 8195 | 21277 | 34800 | 1.5 | 9.8E+00 | U32716.1 | NT | Haemophilus influenzae Rd section 31 of 163 of the complete genome |
| 9944 | 22983 | 36575 | 0.48 | 9.8E+00 | Y18930.1 | NT | Sulfolobus solfataricus 281 kb genomic DNA fragment, strain P2 |
| 9944 | 22983 | 36576 | 0.48 | 9.8E+00 | Y18930.1 | NT | Sulfolobus solfataricus 281 kb genomic DNA fragment, strain P2 |

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## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7139 | 20274 | 33714 | 0.82 | 9.6E+00 | AF065630.1 | NT | Gallus gallus ornithine transcarbamylase (OTC) gene, exon 1 |
| 7139 | 20274 | 33715 | 0.82 | 9.6E+00 | AF065630.1 | NT | Gallus gallus ornithine transcarbamylase (OTC) gene, exon 1 |
| 10636 | 23670 | 37279 | 0.93 | 9.6E+00 | AF242432.1 | NT | Mus musculus Naip3 gene, exon 1; neuronal apoptosis inhibitory protein 1 (Naip1) and general transcription factor IIH polypeptide 2 (Gtf2h2) genes, complete cds |
| 10636 | 23670 | 37280 | 0.93 | 9.6E+00 | AF242432.1 | NT | Mus musculus Naip3 gene, exon 1; neuronal apoptosis inhibitory protein 1 (Naip1) and general transcription factor IIH polypeptide 2 (Gtf2h2) genes, complete cds |
| 2731 | 15849 | 28959 | 0.97 | 9.4E+00 | L11433.1 | NT | Dengue virus type 3 membrane protein (prM/M)/envelope glycoprotein (E) polyprotein mRNA, partial cds |
| 2731 | 15849 | 28960 | 0.97 | 9.4E+00 | L11433.1 | NT | Dengue virus type 3 membrane protein (prM/M)/envelope glycoprotein (E) polyprotein mRNA, partial cds |
| 2990 | 16166 | 29182 | 3.08 | 9.4E+00 | AB043785.1 | NT | Mus musculus AT3 gene for antithrombin, complete cds |
| 8290 | 21372 | 34893 | 1.08 | 9.3E+00 | AF130990.1 | NT | Homo sapiens ectodysplasin-A receptor protein (EDAR) gene, exons 2, 3, and 4 |
| 9204 | 22282 | 35822 | 3.03 | 9.3E+00 | P11210 | SWISSPROT | IMMEDIATE-EARLY PROTEIN 1 (IE1) (IMMEDIATE-EARLY PHOSPHOPROTEIN PP89) |
| 7625 | 20695 | 34171 | 0.6 | 9.2E+00 | Q61767 | SWISSPROT | 3 BETA-HYDROXYSTEROID DEHYDROGENASE TYPE IV (3BETA-HSD IV) (3-BETA-HYDROXY-DELTA(5)-STEROID DEHYDROGENASE) (3-BETA-HYDROXY-5-ENE STEROID DEHYDROGENASE) (PROGESTERONE REDUCTASE) |
| 5411 | 18613 | 31586 | 2.59 | 9.1E+00 | AF095609.1 | NT | Leuciscus cephalus orientalis cytochrome b (cyt b) gene, partial cds; mitochondrial gene for mitochondrial product |
| 5411 | 18613 | 31587 | 2.59 | 9.1E+00 | AF095609.1 | NT | Leuciscus cephalus orientalis cytochrome b (cyt b) gene, partial cds; mitochondrial gene for mitochondrial product |
| 9630 | 22685 |  | 1 | 9.0E+00 | P09241 | SWISSPROT | RHODOPSIN |
| 6160 | 19336 | 32681 | 5.15 | 8.9E+00 | BE971606.1 | EST_HUMAN | 601651038R1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:3934592 3' |
| 6510 | 19675 | 33044 | 2.03 | 8.7E+00 | AB019788.1 | NT | Cynops pyrrhogaster CpTbx3 premature mRNA, partial cds |
| 6510 | 19675 | 33045 | 2.03 | 8.7E+00 | AB019788.1 | NT | Cynops pyrrhogaster CpTbx3 premature mRNA, partial cds |
| 453 | 13649 | 26685 | 1.79 | 8.4E+00 | 5031804 | NT | Homo sapiens insulin receptor substrate 1 (IRS1) mRNA |
| 9654 | 21097 | 34611 | 2.09 | 8.1E+00 | AJ131719.1 | NT | Zea mays mRNA for legumain-like protease (see2a) |
| 11443 | 24504 |  | 1.96 | 8.0E+00 | P41820 | SWISSPROT | BREFELDIN A RESISTANCE PROTEIN |
| 8345 | 21426 |  | 0.98 | 7.6E+00 | Z21489.1 | NT | African swine fever virus NP1450L gene encoding RNA polymerase largest subunit |
| 7501 | 20576 |  | 1.85 | 7.5E+00 | AL445065.1 | NT | Thermoplasma acidophilum complete genome; segment 3/5 |
| 8556 | 21637 | 35174 | 1.42 | 7.5E+00 | P35441 | SWISSPROT | THROMBOSPONDIN 1 PRECURSOR |
| 8556 | 21637 | 35175 | 1.42 | 7.5E+00 | P35441 | SWISSPROT | THROMBOSPONDIN 1 PRECURSOR |
| 5921 | 19108 | 32421 | 3.6 | 7.4E+00 | BF700517.1 | EST_HUMAN | 602128876F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4285506 5' |
| 8953 | 22032 | 35573 | 3 | 7.4E+00 | P04929 | SWISSPROT | HISTIDINE-RICH GLYCOPROTEIN PRECURSOR |
| 8953 | 22032 | 35574 | 3 | 7.4E+00 | P04929 | SWISSPROT | HISTIDINE-RICH GLYCOPROTEIN PRECURSOR |

Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3042 | 16218 | 29238 | 3.41 | 7.2E+00 | L12051.1 | NT | Lycopersicon esculentum Mill. GTPase (SAR2) mRNA, complete cds |
| 3042 | 16218 | 29239 | 3.41 | 7.2E+00 | L12051.1 | NT | Lycopersicon esculentum Mill. GTPase (SAR2) mRNA, complete cds |
| 7174 | 20307 | 33760 | 1.07 | 7.2E+00 | BE179090.1 | EST_HUMAN | RC0-HT0613-200300-031-a07 HT0613 Homo sapiens cDNA |
| 7299 | 20381 | 33838 | 1.22 | 7.1E+00 | P28166 | SWISSPROT | ZINC-FINGER PROTEIN 1 (ZINC-FINGER HOMEODOMAIN PROTEIN 1) |
| 7299 | 20381 | 33839 | 1.22 | 7.1E+00 | P28166 | SWISSPROT | ZINC-FINGER PROTEIN 1 (ZINC-FINGER HOMEODOMAIN PROTEIN 1) |
| 9798 | 22838 | | 9.23 | 7.1E+00 | AL161595.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 91 |
| 11668 | 24745 | 38437 | 2.44 | 7.1E+00 | P05850 | SWISSPROT | HYPOTHETICAL 17.3 KDA PROTEIN IN MRDA-PHPB INTERGENIC REGION |
| 10187 | 23224 | 36818 | 2.76 | 7.0E+00 | P48610 | SWISSPROT | ARGININE KINASE (AK) |
| 11628 | 24584 | 38261 | 1.52 | 7.0E+00 | O22469 | SWISSPROT | WD-40 REPEAT PROTEIN MSI3 |
| 8478 | 21559 | 35093 | 3.17 | 6.9E+00 | P35679 | SWISSPROT | 60S RIBOSOMAL PROTEIN L4 (L2) |
| 10559 | 23594 | 37200 | 1.12 | 6.9E+00 | P44834 | SWISSPROT | DNA MISMATCH REPAIR PROTEIN MUTS |
| 10579 | 23614 | 37219 | 0.6 | 6.9E+00 | P34228 | SWISSPROT | SKT5 PROTEIN |
| 8092 | 21174 | 34688 | 1.64 | 6.8E+00 | W03412.1 | EST_HUMAN | za07c11.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:291860 5' |
| 8092 | 21174 | 34689 | 1.64 | 6.8E+00 | W03412.1 | EST_HUMAN | za07c11.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:291860 5' |
| 9333 | 22409 | | 1.62 | 6.8E+00 | P36307 | SWISSPROT | OUTER CAPSID PROTEIN VP4 (HEMAGGLUTININ) (OUTER LAYER PROTEIN VP4) [CONTAINS: OUTER CAPSID PROTEINS VP5 AND VP8] |
| 10413 | 23448 | 37053 | 3.6 | 6.8E+00 | Q03570 | SWISSPROT | HYPOTHETICAL 157.0 KDA PROTEIN C38C10.5 IN CHROMOSOME III |
| 5398 | 18600 | | 0.65 | 6.6E+00 | Q99028 | SWISSPROT | CATECHOL-O-METHYLTRANSFERASE, SOLUBLE FORM (S-COMT) |
| 6675 | 19834 | 33223 | 0.86 | 6.6E+00 | BF672121.1 | EST_HUMAN | 602152573F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4293427 5' |
| 9234 | 26226 | | 0.55 | 6.6E+00 | P51825 | SWISSPROT | AF-4 PROTEIN (FEL PROTEIN) |
| 10279 | 23314 | 36912 | 2.14 | 6.6E+00 | Q9ZE07 | SWISSPROT | URIDYLATE KINASE (UK) (URIDINE MONOPHOSPHATE KINASE) (UMP KINASE) |
| 10279 | 23314 | 36913 | 2.14 | 6.6E+00 | Q9ZE07 | SWISSPROT | URIDYLATE KINASE (UK) (URIDINE MONOPHOSPHATE KINASE) (UMP KINASE) |
| 10843 | 23876 | 37496 | 0.47 | 6.6E+00 | H29330.1 | EST_HUMAN | ym60f06.s1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:52737 3' |
| 11393 | 24454 | | 1.48 | 6.6E+00 | Q10309 | SWISSPROT | PROBABLE CATION-TRANSPORTING ATPASE C6C3.05C |
| 9382 | 22457 | 36020 | 7 | 6.5E+00 | P03374 | SWISSPROT | ENV POLYPROTEIN [CONTAINS: COAT PROTEIN GP52; COAT PROTEIN GP36] |
| 10512 | 23547 | 37158 | 0.52 | 6.5E+00 | BE866001.1 | EST_HUMAN | 601678435F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3960969 5' |
| 9943 | 22982 | 36574 | 1.34 | 6.2E+00 | AY010901.1 | NT | Schizophyllum commune unknown mRNA |
| 10787 | 23820 | 37444 | 0.7 | 6.2E+00 | 6754621 | NT | Mus musculus mannosidase 2, alpha B1 (Man2b1), mRNA |
| 7181 | 20313 | 33766 | 1.6 | 6.0E+00 | BE780163.1 | EST_HUMAN | 601468031F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3871303 5' |
| 10021 | 23059 | 36655 | 0.49 | 6.0E+00 | AP000006.1 | NT | Pyrococcus horikoshii OT3 genomic DNA, 1166001-1485000 nt. position (6/7) |
| 10732 | 23765 | 37373 | 0.82 | 6.0E+00 | AE001862.1 | NT | Deinococcus radiodurans R1 section 1 of 2 of the complete chromosome 2 |
| 10732 | 23765 | 37374 | 0.82 | 6.0E+00 | AE001862.1 | NT | Deinococcus radiodurans R1 section 1 of 2 of the complete chromosome 2 |
| 6650 | 19809 | 33197 | 7.14 | 5.9E+00 | AF155142.1 | NT | Mus musculus mixed lineage kinase 3 (Mlk3) and two pore domain K+ channel subunit (Kcnk6) genes, complete cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11933 | 24919 | | 3.02 | 5.9E+00 | BE958630.1 | EST_HUMAN | 601645279F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:3930451 5' |
| 3613 | 16777 | | 1.15 | 5.8E+00 | 7661557 | NT | Homo sapiens DESC1 protein (DESC1), mRNA |
| 7312 | 20394 | 33855 | 0.74 | 5.7E+00 | AF302046.1 | NT | Mus musculus immunoglobulin scavenger receptor IgSR mRNA, complete cds |
| 7312 | 20394 | 33856 | 0.74 | 5.7E+00 | AF302046.1 | NT | Mus musculus immunoglobulin scavenger receptor IgSR mRNA, complete cds |
| 7742 | 20803 | | 1.34 | 5.6E+00 | P75080 | SWISSPROT | DNA POLYMERASE III, ALPHA CHAIN POLC-TYPE (POLIII) |
| 11289 | 24355 | 37996 | 2.03 | 5.6E+00 | AB027305.1 | NT | Cyprinus carpio mRNA for lysozyme C, complete cds |
| 11289 | 24355 | 37997 | 2.03 | 5.6E+00 | AB027305.1 | NT | Cyprinus carpio mRNA for lysozyme C, complete cds |
| 11765 | 23951 | 37581 | 2.62 | 5.6E+00 | Q55276 | SWISSPROT | LYCOPENE BETA CYCLASE |
| 6381 | 19550 | 32906 | 0.74 | 5.5E+00 | P47447 | SWISSPROT | HEAT-INDUCIBLE TRANSCRIPTION REPRESSOR HRCA |
| 9982 | 23021 | | 0.56 | 5.5E+00 | P13983 | SWISSPROT | EXTENSIN PRECURSOR (CELL WALL HYDROXYPROLINE-RICH GLYCOPROTEIN) |
| 11018 | 24097 | | 1.46 | 5.5E+00 | AF175425.1 | NT | Mus musculus DNA methyltransferase (Dnmt1) gene, exons 30, 31, and 32 |
| 11763 | 23949 | 37578 | 2.32 | 5.5E+00 | P11990 | SWISSPROT | PNEUMOLYSIN (THIOL-ACTIVATED CYTOLYSIN) |
| 7069 | 20122 | 33536 | 1.11 | 5.4E+00 | X02212.1 | NT | Chicken alpha-cardiac actin gene |
| 7069 | 20122 | 33537 | 1.11 | 5.4E+00 | X02212.1 | NT | Chicken alpha-cardiac actin gene |
| 7484 | 20559 | | 1.04 | 5.4E+00 | Q99435 | SWISSPROT | NEL PROTEIN PRECURSOR (NEL-RELATED PROTEIN 2) |
| 8013 | 21063 | 34575 | 0.74 | 5.4E+00 | P50391 | SWISSPROT | NEUROPEPTIDE Y RECEPTOR TYPE 4 (NPY4-R) (PANCREATIC POLYPEPTIDE RECEPTOR 1) (PP1) |
| 8054 | 21137 | | 1.62 | 5.4E+00 | Q91062 | SWISSPROT | VITELLOGENIN PRECURSOR (VTG) [CONTAINS: LIPOVITELLIN LV-1N; LIPOVITELLIN LV-1C; LIPOVITELLIN LV-2] |
| 8999 | 22078 | 35618 | 0.93 | 5.4E+00 | P40379 | SWISSPROT | REP1 PROTEIN |
| 8999 | 22078 | 35619 | 0.93 | 5.4E+00 | P40379 | SWISSPROT | REP1 PROTEIN |
| 10242 | 23277 | 36870 | 1.45 | 5.4E+00 | Q17094 | SWISSPROT | RHODOPSIN |
| 10242 | 23277 | 36871 | 1.45 | 5.4E+00 | Q17094 | SWISSPROT | RHODOPSIN |
| 4906 | 18036 | 31024 | 1.47 | 5.3E+00 | L43126.1 | NT | Bovine immunodeficiency-like virus surface envelope gene, 5' end of cds |
| 6617 | 19777 | | 0.7 | 5.3E+00 | P41779 | SWISSPROT | HOMEOBOX PROTEIN CEH-20 |
| 8270 | 21352 | | 3.39 | 5.3E+00 | P54098 | SWISSPROT | DNA POLYMERASE GAMMA (MITOCHONDRIAL DNA POLYMERASE CATALYTIC SUBUNIT) |
| 9184 | 22262 | | 0.72 | 5.3E+00 | AB034990.1 | NT | Homo sapiens HERPUD1 gene for stress protein Herp, complete cds |
| 11928 | 24914 | 38616 | 1.51 | 5.3E+00 | Q27905 | SWISSPROT | PROBABLE ANTIBACTERIAL PEPTIDE POLYPROTEIN PRECURSOR |
| 5580 | 18775 | | 1.16 | 5.2E+00 | BE184840.1 | EST_HUMAN | QV4-HT0691-270400-186-f09 HT0691 Homo sapiens cDNA. |
| 10583 | 23618 | | 0.96 | 5.2E+00 | AF248070.1 | NT | Drosophila orientacea R1B retrotransposable element reverse transcriptase gene, partial cds |
| 11470 | 24529 | | 1.93 | 5.2E+00 | Q10136 | SWISSPROT | HYPOTHETICAL 61.1 KD PROTEIN C23E2.03C IN CHROMOSOME I |
| 9162 | 22240 | 35784 | 0.94 | 5.1E+00 | O16005 | SWISSPROT | RHODOPSIN |
| 10030 | 23068 | 36667 | 1.33 | 5.1E+00 | P09182 | SWISSPROT | COLICIN N IMMUNITY PROTEIN (MICROCIN N IMMUNITY PROTEIN) |
| 6415 | 19584 | 32946 | 0.74 | 5.0E+00 | BF310443.1 | EST_HUMAN | 601894910F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4124114 5' |
| 10397 | 23432 | | 0.7 | 5.0E+00 | BF308561.1 | EST_HUMAN | 601890420F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4131509 5' |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10645 | 23679 | 37289 | 2.89 | 5.0E+00 | AF162445.2 | NT | Canis familiaris skeletal muscle chloride channel ClC-1 (CLCN1) mRNA, complete cds |
| 11569 | 24624 | 38304 | 7.24 | 5.0E+00 | Z83860.1 | NT | Mycobacterium tuberculosis H37Rv complete genome; segment 103/162 |
| 10437 | 23472 | | 0.76 | 4.9E+00 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, RoRet gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| 4172 | 17322 | | 12.39 | 4.8E+00 | AF185255.1 | NT | Eunice australis histone H3 (H3) gene, partial cds |
| 8348 | 21429 | 34953 | 0.6 | 4.8E+00 | BF367909.1 | EST_HUMAN | RC3-GN0042-100800-011-c10 GN0042 Homo sapiens cDNA |
| 8738 | 21817 | | 4.92 | 4.8E+00 | AW750067.1 | EST_HUMAN | PM0-BT0547-310100-002-b04 BT0547 Homo sapiens cDNA |
| 300 | 13517 | 26550 | 3.04 | 4.7E+00 | BF240552.1 | EST_HUMAN | 601875654F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4099716 5' |
| 301 | 13517 | 26550 | 1.85 | 4.7E+00 | BF240552.1 | EST_HUMAN | 601875654F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4099716 5' |
| 3347 | 16520 | 29534 | 1.02 | 4.7E+00 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 7962 | 21012 | 34522 | 0.59 | 4.6E+00 | U67569.1 | NT | Methanococcus jannaschii section 111 of 150 of the complete genome |
| 9397 | 22471 | 36036 | 1.1 | 4.6E+00 | BE646437.1 | EST_HUMAN | 7e86g10.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:3292098 3' similar to TR:O75140 O75140 KIAA0645 PROTEIN. ;contains element PTR5 repetitive element ; |
| 9397 | 22471 | 36037 | 1.1 | 4.6E+00 | BE646437.1 | EST_HUMAN | 7e86g10.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:3292098 3' similar to TR:O75140 O75140 KIAA0645 PROTEIN. ;contains element PTR5 repetitive element ; |
| 10600 | 23635 | | 0.63 | 4.6E+00 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 7947 | 20997 | | 0.7 | 4.5E+00 | AF126177.1 | NT | Issatchenkia orientalis inositolphosphorylceramide synthase (IPC1) gene, complete cds |
| 11804 | 24892 | 38593 | 1.87 | 4.5E+00 | AE001044.1 | NT | Archaeoglobus fulgidus section 63 of 172 of the complete genome |
| 12058 | 25039 | 38747 | 1.53 | 4.5E+00 | BF668841.1 | EST_HUMAN | 602123238F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4280216 5' |
| 3105 | 16281 | 29296 | 0.84 | 4.4E+00 | BF530893.1 | EST_HUMAN | 602072585F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4215284 5' |
| 3105 | 16281 | 29297 | 0.84 | 4.4E+00 | BF530893.1 | EST_HUMAN | 602072585F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4215284 5' |
| 6331 | 19502 | | 1.58 | 4.4E+00 | X13414.1 | NT | Murine I gene for MHC class II(Ia) associated invariant chain |
| 6245 | 19419 | | 0.77 | 4.3E+00 | AF059679.1 | NT | Homo sapiens neutrophil collagenase (CLGNA) gene, promoter region and 5'UTR |
| 7596 | 20686 | 34142 | 2.53 | 4.3E+00 | Y13402.1 | NT | Plasmodium falciparum R29R+var1 gene, exon 1 |
| 7792 | 20848 | 34341 | 0.68 | 4.3E+00 | AE001222.1 | NT | Treponema pallidum section 38 of 87 of the complete genome |
| 11101 | 24174 | 37809 | 14.74 | 4.3E+00 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 5634 | 18828 | | 4.1 | 4.2E+00 | P16444 | SWISSPROT | MICROSOMAL DIPEPTIDASE PRECURSOR (MDP) (DEHYDROPEPTIDASE-I) (RENAL DIPEPTIDASE) (RDP) |
| 5711 | 18904 | 32199 | 1.07 | 4.2E+00 | P51826 | SWISSPROT | LAF-4 PROTEIN (LYMPHOID NUCLEAR PROTEIN) |
| 5880 | 19070 | | 0.71 | 4.2E+00 | O27830 | SWISSPROT | PUTATIVE ATP-DEPENDENT HELICASE MTH1802 |
| 6911 | 20226 | 33657 | 1.67 | 4.2E+00 | P13983 | SWISSPROT | EXTENSIN PRECURSOR (CELL WALL HYDROXYPROLINE-RICH GLYCOPROTEIN) |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6911 | 20226 | 33658 | 1.67 | 4.2E+00 | P13983 | SWISSPROT | EXTENSIN PRECURSOR (CELL WALL HYDROXYPROLINE-RICH GLYCOPROTEIN) |
| 9160 | 22238 | 35783 | 5.3 | 4.2E+00 | AI809013.1 | EST_HUMAN | wf67g03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2360692 3' |
| 10122 | 23160 | 36759 | 1.03 | 4.2E+00 | P31368 | SWISSPROT | NUBBIN PROTEIN (TWAIN PROTEIN) (POU DOMAIN PROTEIN 1) (PDM-1) (DPOU-19) (DOCT1) |
| 10352 | 23387 | | 0.47 | 4.2E+00 | P40886 | SWISSPROT | HEXOSE TRANSPORTER HXT8 |
| 7261 | 20344 | 33796 | 0.98 | 4.1E+00 | BE253668.1 | EST_HUMAN | 601110727F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3351534 5' |
| 7839 | 20894 | 34396 | 7.66 | 4.1E+00 | O23810 | SWISSPROT | YY1 PROTEIN PRECURSOR |
| 7960 | 21010 | | 0.64 | 4.1E+00 | AB041523.1 | NT | Patinopecten yessoensis mRNA for calcineurin A, complete cds |
| 7963 | 21013 | 34523 | 3.8 | 4.1E+00 | P28964 | SWISSPROT | GENE 68 PROTEIN |
| 7963 | 21013 | 34524 | 3.8 | 4.1E+00 | P28964 | SWISSPROT | GENE 68 PROTEIN |
| 8101 | 21183 | 34703 | 2.88 | 4.1E+00 | U57503.1 | NT | Pan troglodytes novel repetitive solo LTR element in the RNU2 locus |
| 9740 | 22805 | 36381 | 0.61 | 4.1E+00 | P11253 | SWISSPROT | 50S RIBOSOMAL PROTEIN L4 |
| 9873 | 22913 | 36498 | 2.25 | 4.1E+00 | BF692425.1 | EST_HUMAN | 602247938F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4333209 5' |
| 10370 | 23405 | | 0.55 | 4.1E+00 | AJ235273.1 | NT | Rickettsia prowazekii strain Madrid E, complete genome; segment 4/4 |
| 10514 | 23549 | | 0.52 | 4.1E+00 | P46414 | SWISSPROT | CYCLIN-DEPENDENT KINASE INHIBITOR 1B (CYCLIN-DEPENDENT KINASE INHIBITOR P27) (P27KIP1) |
| 11124 | 24196 | | 2.15 | 4.1E+00 | P09716 | SWISSPROT | HYPOTHETICAL PROTEIN HVLF1 |
| 11214 | 24283 | | 12.25 | 4.1E+00 | BE886880.1 | EST_HUMAN | 601507510F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3909051 5' |
| 3635 | 16799 | | 0.72 | 4.0E+00 | P38229 | SWISSPROT | GLC7-INTERACTING PROTEIN 1 |
| 5575 | 20130 | 33546 | 0.93 | 4.0E+00 | O62663 | SWISSPROT | SUCRASE-ISOMALTASE, INTESTINAL [CONTAINS: SUCRASE ; ISOMALTASE ] |
| 5575 | 20130 | 33547 | 0.93 | 4.0E+00 | O62663 | SWISSPROT | SUCRASE-ISOMALTASE, INTESTINAL [CONTAINS: SUCRASE ; ISOMALTASE ] |
| 7077 | 20130 | 33546 | 0.99 | 4.0E+00 | O62653 | SWISSPROT | SUCRASE-ISOMALTASE, INTESTINAL [CONTAINS: SUCRASE ; ISOMALTASE ] |
| 7077 | 20130 | 33547 | 0.99 | 4.0E+00 | O62653 | SWISSPROT | SUCRASE-ISOMALTASE, INTESTINAL [CONTAINS: SUCRASE ; ISOMALTASE ] |
| 7339 | 20419 | 33881 | 1 | 4.0E+00 | O33010 | SWISSPROT | CELL DIVISION PROTEIN FTSY HOMOLOG |
| 9074 | 22153 | 35697 | 0.49 | 4.0E+00 | Q14157 | SWISSPROT | HYPOTHETICAL PROTEIN KIAA0144 |
| 10148 | 23186 | 36783 | 0.65 | 4.0E+00 | O61309 | SWISSPROT | NITRIC-OXIDE SYNTHASE (NOS, TYPE I) (NEURONAL NOS) (N-NOS) (NNOS) |
| 10368 | 23403 | 37014 | 0.6 | 4.0E+00 | AE002132.1 | NT | Ureaplasma urealyticum section 33 of 59 of the complete genome |
| 10464 | 23499 | 37111 | 0.45 | 4.0E+00 | Q00511 | SWISSPROT | URICASE (URATE OXIDASE) |
| 10464 | 23499 | 37112 | 0.45 | 4.0E+00 | Q00511 | SWISSPROT | URICASE (URATE OXIDASE) |
| 11762 | 23948 | 37577 | 1.59 | 4.0E+00 | P14546 | SWISSPROT | CYTOCHROME C OXIDASE POLYPEPTIDE III |
| 11843 | 24832 | 38524 | 2.98 | 4.0E+00 | P07564 | SWISSPROT | GENOME POLYPROTEIN [CONTAINS: CAPSID PROTEIN C (CORE PROTEIN); MATRIX PROTEIN (ENVELOPE GLYCOPROTEIN M); MAJOR ENVELOPE PROTEIN E; NONSTRUCTURAL PROTEINS NS1, NS2A, NS2B, NS4A AND NS4B; HELICASE (NS3); RNA-DIRECTED RNA POLYMERASE (NS5)] |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11843 | 24832 | 38625 | 2.98 | 4.0E+00 | P07564 | SWISSPROT | GENOME POLYPROTEIN [CONTAINS: CAPSID PROTEIN C (CORE PROTEIN); MATRIX PROTEIN (ENVELOPE GLYCOPROTEIN M); MAJOR ENVELOPE PROTEIN E; NONSTRUCTURAL PROTEINS NS1, NS2A, NS2B, NS4A AND NS4B; HELICASE (NS3); RNA-DIRECTED RNA POLYMERASE (NS5)] |
| 12133 | 25113 | 38817 | 1.34 | 4.0E+00 | P35611 | SWISSPROT | ERYTHROCYTE ADDUCIN ALPHA SUBUNIT |
| 3591 | 16755 | 29770 | 5 | 3.9E+00 | X64518.1 | NT | N.tabacum chitinase gene 50 for class I chitinase C |
| 4441 | 17581 | | 0.87 | 3.9E+00 | AF055466.1 | NT | Mus musculus seminal vesicle secretory protein 99 (MSVSP99) gene, promoter region |
| 5775 | 18967 | 32270 | 2.92 | 3.9E+00 | BE814357.1 | EST_HUMAN | MR0-BN0070-300500-028-h05 BN0070 Homo sapiens cDNA |
| 5775 | 18967 | 32271 | 2.92 | 3.9E+00 | BE814357.1 | EST_HUMAN | MR0-BN0070-300500-028-h05 BN0070 Homo sapiens cDNA |
| 6772 | 19927 | 33322 | 0.93 | 3.9E+00 | AF298209.1 | NT | Dictyostelium discoideum non-LTR retrotransposon TRE5-B, polyprotein (gag) and group-specific antigen (pol) genes, complete cds |
| 6829 | 19982 | 33389 | 0.7 | 3.9E+00 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, RoRet gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| 7013 | 20149 | 33570 | 4.43 | 3.9E+00 | P39299 | SWISSPROT | HYPOTHETICAL TRANSCRIPTIONAL REGULATOR IN AIDB-RPSF INTERGENIC REGION |
| 7519 | 20592 | 34066 | 4.25 | 3.9E+00 | M23907.1 | NT | Human MHC class II lymphocyte antigen (DPw4-beta-1) gene, exon 2 |
| 8512 | 21593 | 35128 | 2.44 | 3.9E+00 | X65865.1 | NT | X.laevis mRNA for M4 muscarinic receptor |
| 11674 | 23902 | 37524 | 2.77 | 3.9E+00 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 2693 | 15813 | | 1.53 | 3.8E+00 | AE001562.1 | NT | Helicobacter pylori, strain J99 section 123 of 132 of the complete genome |
| 6520 | 19685 | 33057 | 1.05 | 3.8E+00 | Q57830 | SWISSPROT | HYPOTHETICAL PROTEIN MJ0385 |
| 8627 | 21707 | 35244 | 1.12 | 3.8E+00 | D44725.1 | EST_HUMAN | HUMSUPY135 Human brain cDNA Homo sapiens cDNA clone 148 |
| 9999 | 23037 | | 0.6 | 3.8E+00 | AJ390961.1 | NT | Streptococcus oralis partial xpt gene for xanthine phosphoribosyltransferase, strain NCTC7864 |
| 12120 | 25100 | | 11.65 | 3.8E+00 | 9631294 | NT | Melanoplus sanguinipes entomopoxvirus, complete genome |
| 4129 | 17282 | 30277 | 12.79 | 3.7E+00 | AL161539.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 39 |
| 7316 | 20398 | | 0.83 | 3.7E+00 | AL445065.1 | NT | Thermoplasma acidophilum complete genome; segment 3/5 |
| 9379 | 22454 | 36017 | 1.04 | 3.7E+00 | U43541.1 | NT | Mus musculus laminin beta 2 gene, exons 17-33, and complete cds |
| 11715 | 24755 | 38450 | 2.11 | 3.7E+00 | BF669279.1 | EST_HUMAN | 602120551F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4277748 5' |
| 11715 | 24755 | 38451 | 2.11 | 3.7E+00 | BF669279.1 | EST_HUMAN | 602120551F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4277748 5' |
| 12260 | 25196 | | 1.87 | 3.7E+00 | AB013746.3 | NT | Gallus gallus mRNA for hypoxia-inducible factor-1 alpha, complete cds |
| 606 | 13795 | 26814 | 3.76 | 3.6E+00 | AV761055.1 | EST_HUMAN | AV761055 MDS Homo sapiens cDNA clone MDSBUE10 5' |
| 5369 | 18572 | 31440 | 0.78 | 3.6E+00 | BF316316.1 | EST_HUMAN | 601901666F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4131016 5' |
| 8749 | 21828 | 35364 | 0.86 | 3.6E+00 | D12367.1 | EST_HUMAN | HUM000TB08 Liver HepG2 cell line. Homo sapiens cDNA clone tb08 |
| 8749 | 21828 | 35365 | 0.86 | 3.6E+00 | D12367.1 | EST_HUMAN | HUM000TB08 Liver HepG2 cell line. Homo sapiens cDNA clone tb08 |
| 8847 | 21926 | 35464 | 3.67 | 3.6E+00 | AE004447.1 | NT | Pseudomonas aeruginosa PA01, section 8 of 529 of the complete genome |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8847 | 21926 | 35465 | 3.67 | 3.6E+00 | AE004447.1 | NT | Pseudomonas aeruginosa PA01, section 8 of 529 of the complete genome |
| 9864 | 22904 | 36488 | 0.51 | 3.6E+00 | U72775.1 | NT | Ciconia episcopus cytochrome b gene, mitochondrial gene encoding mitochondrial protein, partial cds |
| 9864 | 22904 | 36489 | 0.51 | 3.6E+00 | U72775.1 | NT | Ciconia episcopus cytochrome b gene, mitochondrial gene encoding mitochondrial protein, partial cds |
| 11093 | 24167 |  | 3.21 | 3.6E+00 | M96795.1 | NT | Escherichia coli glycerophosphate dehydrogenase (glpD) gene, partial cds; and the translation start site has been verified (glpE), the translation start site has been verified (glpG), and repressor protein (glpR) genes, complete cds |
| 3319 | 16492 | 29509 | 1.04 | 3.5E+00 | AF221538.1 | NT | Cryptosporidium felis heat shock protein 70 (HSP70) gene, partial cds |
| 6123 | 19302 |  | 1 | 3.5E+00 | L42898.1 | NT | Borrelia burgdorferi (strain 25015) outer surface protein (ospC) gene, partial cds |
| 6341 | 19511 | 32868 | 0.93 | 3.5E+00 | R19745.1 | EST_HUMAN | yg40c08.r1 Soares infant brain 1NIB Homd sapiens cDNA clone IMAGE:34940 5' |
| 8681 | 21761 |  | 0.56 | 3.5E+00 | P24557 | SWISSPROT | THROMBOXANE-A SYNTHASE (TXA SYNTHASE) (TXS) |
| 9232 | 22310 | 35851 | 0.99 | 3.5E+00 | AA190998.1 | EST_HUMAN | zp86b04.s1 Stratagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:627055 3' similar to contains Alu repetitive element;contains element MSR1 repetitive element ; |
| 9232 | 22310 | 35852 | 0.99 | 3.5E+00 | AA190998.1 | EST_HUMAN | zp86b04.s1 Stratagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:627055 3' similar to contains Alu repetitive element;contains element MSR1 repetitive element ; |
| 9694 | 22743 | 36313 | 1 | 3.5E+00 | AL161553.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 53 |
| 10739 | 23772 | 37383 | 0.58 | 3.5E+00 | AJ133723.1 | NT | Bos taurus mRNA for Ran-binding protein 2, partial |
| 1542 | 14694 | 27773 | 3.81 | 3.4E+00 | AF254577.1 | NT | Brassica napus RPB5d mRNA, complete cds |
| 2644 | 15767 | 28882 | 1.07 | 3.4E+00 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 7518 | 20591 | 34065 | 2.33 | 3.4E+00 | P04052 | SWISSPROT | DNA-DIRECTED RNA POLYMERASE II LARGEST SUBUNIT |
| 7880 | 20932 | 34437 | 0.76 | 3.4E+00 | P04052 | SWISSPROT | DNA-DIRECTED RNA POLYMERASE II LARGEST SUBUNIT |
| 8876 | 21955 |  | 0.77 | 3.4E+00 | U65406.1 | NT | Human alternatively spliced potassium channels ROM-K1, ROM-K2, ROM-K3, ROM-K4, ROM-K5, and ROM-K6 (KCNJ1) gene, complete cds |
| 9274 | 22350 | 35901 | 0.77 | 3.4E+00 | AJ229042.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22, segment 2/3 |
| 9312 | 22388 | 35939 | 0.54 | 3.4E+00 | AJ250567.1 | NT | Homo sapiens partial TM4SF2 gene for tetraspanin protein, exon 6 |
| 10471 | 23506 | 37119 | 3.35 | 3.4E+00 | AF013167.1 | NT | Saccharomyces cerevisiae MSS1 gene, complete cds |
| 11822 | 24811 | 38506 | 2.06 | 3.4E+00 | L77570.1 | NT | Homo sapiens DiGeorge syndrome critical region, centromeric end |
| 6193 | 19369 | 32719 | 0.97 | 3.3E+00 | Q09669 | SWISSPROT | PUTATIVE IRON ALCOHOL DEHYDROGENASE |
| 6193 | 19369 | 32720 | 0.97 | 3.3E+00 | Q09669 | SWISSPROT | PUTATIVE IRON ALCOHOL DEHYDROGENASE |
| 8077 | 21159 | 34676 | 1.03 | 3.3E+00 | AF111168.2 | NT | Homo sapiens serine palmitoyl transferase, subunit II gene, complete cds; and unknown genes |
| 10681 | 23715 | 37321 | 1.04 | 3.3E+00 | AP001511.1 | NT | Bacillus halodurans genomic DNA, section 5/14 |
| 10681 | 23715 | 37322 | 1.04 | 3.3E+00 | AP001511.1 | NT | Bacillus halodurans genomic DNA, section 5/14 |
| 513 | 13707 | 26735 | 1.79 | 3.2E+00 | X96422.1 | NT | D.rerio zp-50 POU gene |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4136 | 13707 | 26735 | 0.78 | 3.2E+00 | X96422.1 | NT | D.rerio zp-50 POU gene |
| 4860 | 17983 | 30971 | 0.95 | 3.2E+00 | 4502404 | NT | Homo sapiens carcinoembryonic antigen-related cell adhesion molecule 1 (biliary glycoprotein) (CEACAM1), mRNA |
| 5686 | 18880 | 32170 | 1.16 | 3.2E+00 | P54924 | SWISSPROT | SQUALENE--HOPENE CYCLASE |
| 5686 | 18880 | 32171 | 1.16 | 3.2E+00 | P54924 | SWISSPROT | SQUALENE--HOPENE CYCLASE |
| 5719 | 18912 | 32207 | 2.49 | 3.2E+00 | P12783 | SWISSPROT | PHOSPHOGLYCERATE KINASE, CYTOSOLIC |
| 5719 | 18912 | 32208 | 2.49 | 3.2E+00 | P12783 | SWISSPROT | PHOSPHOGLYCERATE KINASE, CYTOSOLIC |
| 6436 | 19603 | 32966 | 1.91 | 3.2E+00 | P18931 | SWISSPROT | NADH-UBIQUINONE OXIDOREDUCTASE CHAIN 4 |
| 6436 | 19603 | 32967 | 1.91 | 3.2E+00 | P18931 | SWISSPROT | NADH-UBIQUINONE OXIDOREDUCTASE CHAIN 4 |
| 7781 | 20837 | 34330 | 0.86 | 3.2E+00 | P04275 | SWISSPROT | VON WILLEBRAND FACTOR PRECURSOR (VWF) |
| 7952 | 21002 | 34513 | 2.41 | 3.2E+00 | Y13655.1 | NT | Chlamydomonas reinhardtii chloroplast DNA for rps9, ycf4, ycf3, rps18 genes |
| 7952 | 21002 | 34514 | 2.41 | 3.2E+00 | Y13655.1 | NT | Chlamydomonas reinhardtii chloroplast DNA for rps9, ycf4, ycf3, rps18 genes |
| 9230 | 22308 | | 5.26 | 3.2E+00 | P13061 | SWISSPROT | PERIPLASMIC [NIFE] HYDROGENASE SMALL SUBUNIT (NIFE HYDROGENLYASE SMALL CHAIN) |
| 9730 | 22795 | 36369 | 1.31 | 3.2E+00 | M36383.1 | NT | S.cerevisiae threonine deaminase (ILV1) gene, complete cds |
| 10345 | 23380 | 36991 | 2.06 | 3.2E+00 | AB016081.2 | NT | Oryzias latipes OlGC8 gene for guanylyl cyclase C, complete cds |
| 12219 | 25169 | | 2.95 | 3.2E+00 | L33836.1 | NT | Sus scrofa choline acetyltransferase gene, promoter region |
| 5996 | 19181 | 32503 | 2.29 | 3.1E+00 | Q10135 | SWISSPROT | HYPOTHETICAL 142.5 KD PROTEIN C23E2.02 IN CHROMOSOME I |
| 7547 | 20619 | 34095 | 0.91 | 3.1E+00 | P52178 | SWISSPROT | TRIOSE PHOSPHATE/PHOSPHATE TRANSLOCATOR, NON-GREEN PLASTID PRECURSOR (CTPT) |
| 7904 | 20956 | | 1.09 | 3.1E+00 | AF303225.1 | NT | Bacillus alcalophilus pectate lyase (pelE) gene, complete cds |
| 8279 | 21361 | 34880 | 0.51 | 3.1E+00 | P40985 | SWISSPROT | PROBABLE UBIQUITIN--PROTEIN LIGASE HUL4 |
| 8801 | 21880 | 35417 | 5.14 | 3.1E+00 | P49894 | SWISSPROT | TYPE I IODOTHYRONINE DEIODINASE (TYPE-I 5'DEIODINASE) (DIOI) (TYPE 1 DI) (5DI) |
| 8801 | 21880 | 35418 | 5.14 | 3.1E+00 | P49894 | SWISSPROT | TYPE I IODOTHYRONINE DEIODINASE (TYPE-I 5'DEIODINASE) (DIOI) (TYPE 1 DI) (5DI) |
| 9459 | 22575 | | 3.7 | 3.1E+00 | Q14957 | SWISSPROT | GLUTAMATE [NMDA] RECEPTOR SUBUNIT EPSILON 3 PRECURSOR (N-METHYL D-ASPARTATE RECEPTOR SUBTYPE 2C) (NR2C) (NMDAR2C) |
| 9526 | 22591 | 36162 | 0.55 | 3.1E+00 | Q01149 | SWISSPROT | COLLAGEN ALPHA 2(I) CHAIN PRECURSOR |
| 10100 | 23138 | 36739 | 0.76 | 3.1E+00 | 7524759 | NT | Chlorella vulgaris chloroplast, complete genome |
| 10193 | 23230 | | 0.56 | 3.1E+00 | Q10125 | SWISSPROT | HYPOTHETICAL 56.3 KD PROTEIN F52C9.5 IN CHROMOSOME III |
| 10543 | 23578 | 37187 | 4.09 | 3.1E+00 | P49365 | SWISSPROT | DEOXYHYPUSINE SYNTHASE (DHS) |
| 11751 | 23937 | | 2.45 | 3.1E+00 | P33515 | SWISSPROT | GENOME POLYPROTEIN [CONTAINS: CAPSID PROTEIN C (CORE PROTEIN); MATRIX PROTEIN (ENVELOPE PROTEIN M); MAJOR ENVELOPE PROTEIN E; NONSTRUCTURAL PROTEINS NS1, NS2A, NS2B, NS4A AND NS4B; HELICASE (NS3); RNA-DIRECTED RNA POLYMERASE (NS5)] |
| 11771 | 24753 | | 2.49 | 3.1E+00 | S56660.1 | NT | retinoic acid nuclear receptor isoform beta 2 [mice, embryonal carcinoma cell line, PCC7-MZ1, mRNA, 2971 nt] |
| 13019 | 25670 | | 1.17 | 3.1E+00 | U77666.1 | NT | Brassica rapa pollen coat protein homolog (BAN103) gene, complete cds |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2899 | 16078 | 29095 | 0.95 | 3.0E+00 | 8923984 | NT | Homo sapiens hypothetical protein PRO0889 (PRO0889), mRNA |
| 5454 | 18654 | 31633 | 1.29 | 3.0E+00 | X53096.1 | NT | S.aureus genes encoding Sau96I DNA methyltransferase and Sau96I restriction endonuclease |
| 6686 | 19844 | 33234 | 0.82 | 3.0E+00 | X56037.1 | NT | Corynebacterium glutamicum thrC gene for threonine synthase (EC 4.2.99.2) |
| 6686 | 19844 | 33235 | 0.82 | 3.0E+00 | X56037.1 | NT | Corynebacterium glutamicum thrC gene for threonine synthase (EC 4.2.99.2) |
| 7306 | 20388 | | 11.21 | 3.0E+00 | P18406 | SWISSPROT | CYR61 PROTEIN PRECURSOR (3CH61) |
| 7346 | 20426 | | 0.7 | 3.0E+00 | Q13201 | SWISSPROT | ENDOTHELIAL CELL MULTIMERIN PRECURSOR |
| 9108 | 22187 | | 1.62 | 3.0E+00 | X67838.1 | NT | B.napus DNA for myrosinase |
| 10501 | 23636 | 37146 | 0.56 | 3.0E+00 | Q58605 | SWISSPROT | S-ADENOSYLMETHIONINE SYNTHETASE (METHIONINE ADENOSYLTRANSFERASE) (ADOMET SYNTHETASE) |
| 11259 | 24328 | 37967 | 4.96 | 3.0E+00 | P51842 | SWISSPROT | RETINAL GUANYLYL CYCLASE 2 PRECURSOR (GUANYLATE CYCLASE 2F, RETINAL) (RETGC-2) (ROD OUTER SEGMENT MEMBRANE GUANYLATE CYCLASE 2) (ROS-GC2) (GUANYLATE CYCLASE F) (GC-F) |
| 11259 | 24328 | 37968 | 4.96 | 3.0E+00 | P51842 | SWISSPROT | RETINAL GUANYLYL CYCLASE 2 PRECURSOR (GUANYLATE CYCLASE 2F, RETINAL) (RETGC-2) (ROD OUTER SEGMENT MEMBRANE GUANYLATE CYCLASE 2) (ROS-GC2) (GUANYLATE CYCLASE F) (GC-F) |
| 11885 | 24873 | 38570 | 1.37 | 3.0E+00 | P34194 | SWISSPROT | NADH-UBIQUINONE OXIDOREDUCTASE CHAIN 4 |
| 2067 | 15208 | 28324 | 2.69 | 2.9E+00 | AE002225.2 | NT | Chlamydophila pneumoniae AR39, section 63 of 94 of the complete genome |
| 7049 | 20102 | 33519 | 1.65 | 2.9E+00 | Z36879.1 | NT | F.pringlei gdcsPA gene for P-protein of the glycine cleavage system |
| 7360 | 20439 | 33899 | 4.66 | 2.9E+00 | O14514 | SWISSPROT | BRAIN-SPECIFIC ANGIOGENESIS INHIBITOR 1 PRECURSOR |
| 7360 | 20439 | 33900 | 4.66 | 2.9E+00 | O14514 | SWISSPROT | BRAIN-SPECIFIC ANGIOGENESIS INHIBITOR 1 PRECURSOR |
| 7614 | 20684 | 34160 | 6.19 | 2.9E+00 | P46589 | SWISSPROT | ADHERENCE FACTOR (ADHESION AND AGGREGATION MEDIATING SURFACE ANTIGEN) |
| 8052 | 21135 | 34655 | 0.57 | 2.9E+00 | P05844 | SWISSPROT | STRUCTURAL POLYPROTEIN [CONTAINS: MAJOR STRUCTURAL PROTEIN VP2; NONSTRUCTURAL PROTEIN VP4; MINOR STRUCTURAL PROTEIN VP3] |
| 8052 | 21135 | 34656 | 0.57 | 2.9E+00 | P05844 | SWISSPROT | STRUCTURAL POLYPROTEIN [CONTAINS: MAJOR STRUCTURAL PROTEIN VP2; NONSTRUCTURAL PROTEIN VP4; MINOR STRUCTURAL PROTEIN VP3] |
| 6289 | 21371 | 34892 | 0.81 | 2.9E+00 | BF344171.1 | EST_HUMAN | 602017413F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4153059 5' |
| 9438 | 22512 | | 0.82 | 2.9E+00 | AJ002153.2 | NT | Saguinus oedipus gene for seminal vesicle secreted protein semenogelin I |
| 1486 | 14639 | 27722 | 4.77 | 2.8E+00 | AF186398.1 | NT | Buxus harlandii maturase K (matK) gene, partial cds; chloroplast gene for chloroplast product |
| 1662 | 14814 | | 3.14 | 2.8E+00 | AL161552.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 52 |
| 7460 | 20535 | 34010 | 5.05 | 2.8E+00 | 8393724 | NT | Mus musculus endomucin (LOC53423), mRNA |
| 9813 | 22853 | | 0.6 | 2.8E+00 | BE565182.1 | EST_HUMAN | 601342756F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3684807 5' |
| 10928 | 20535 | 34010 | 1.53 | 2.8E+00 | 8393724 | NT | Mus musculus endomucin (LOC53423), mRNA |
| 240 | 13462 | 26490 | 13.96 | 2.7E+00 | 6679306 | NT | Mus musculus per-hexamer repeat gene 3 (Phxr3), mRNA |
| 240 | 13462 | 26491 | 13.96 | 2.7E+00 | 6679306 | NT | Mus musculus per-hexamer repeat gene 3 (Phxr3), mRNA |

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Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5669 | 18863 | 32148 | 1.41 | 2.7E+00 | L14005.1 | NT | Homo sapiens apoA polymorphism Kringle IV gene, exons 1 and 2 |
| 8339 | 21420 | | 0.74 | 2.7E+00 | U15947.1 | NT | Ipomoea purpurea chalcone synthase (CHSB) gene including complete 5'UTR and complete cds |
| 9168 | 22246 | | 2.16 | 2.7E+00 | AL116459.1 | NT | Botrytis cinerea strain T4 cDNA library under conditions of nitrogen deprivation |
| 9632 | 21075 | 34587 | 0.61 | 2.7E+00 | AW088191.1 | EST_HUMAN | xc88e12.x1 NCI_CGAP_Brn35 Homo sapiens cDNA clone IMAGE:2591374 3' similar to gb:M17733 THYMOSIN BETA-4 (HUMAN); |
| 10718 | 23751 | | 1.94 | 2.7E+00 | BE063527.1 | EST_HUMAN | CM0-BT0281-031199-087-h04 BT0281 Homo sapiens cDNA |
| 4796 | 17931 | 30917 | 5.51 | 2.6E+00 | AF068749.1 | NT | Mus musculus sphingosine kinase (SPHK1b) mRNA, complete cds |
| 5665 | 18859 | 32143 | 2.04 | 2.6E+00 | 6755601 | NT | Mus musculus SRY-box containing gene 13 (Sox13), mRNA |
| 5665 | 18859 | 32144 | 2.04 | 2.6E+00 | 6755601 | NT | Mus musculus SRY-box containing gene 13 (Sox13), mRNA |
| 5947 | 19133 | | 2.55 | 2.6E+00 | Y17062.1 | NT | Mycobacterium fortuitum furA II gene |
| 7727 | 26220 | | 1.16 | 2.6E+00 | AJ224639.1 | NT | Homo sapiens Surf-5 and Surf-6 genes |
| 7879 | 20931 | | 11.26 | 2.6E+00 | AF235602.1 | NT | Mus musculus SH2-containing inositol 5-phosphatase (Ship) gene, exons 16 through 27, and complete cds |
| 8249 | 21331 | 34847 | 1.17 | 2.6E+00 | AJ132180.1 | NT | faba bean necrotic yellows virus C2-Eg gene, isolate Egyptian EV1-93 |
| 8249 | 21331 | 34848 | 1.17 | 2.6E+00 | AJ132180.1 | NT | faba bean necrotic yellows virus C2-Eg gene, isolate Egyptian EV1-93 |
| 9858 | 22898 | 36481 | 2.85 | 2.6E+00 | AL161640.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 40 |
| 10563 | 23598 | | 1.91 | 2.6E+00 | 9055193 | NT | Mus musculus cleavage and polyadenylation specificity factor 3 (Cpsf3), mRNA |
| 11281 | 24347 | 37984 | 2.2 | 2.6E+00 | AF143675.1 | NT | Hantavirus Z10 segment M G1/G2 glycoprotein (Z10) gene, complete cds |
| 12917 | 26064 | | 3.3 | 2.6E+00 | 11419220 | NT | Homo sapiens ATP-binding cassette, sub-family B (MDR/TAP), member 4 (ABCB4), mRNA |
| 1492 | 14645 | 27726 | 3.03 | 2.5E+00 | AJ271844.1 | NT | Aspergillus nidulans recQ gene for DNA helicase, exons 1-4 |
| 1492 | 14645 | 27727 | 3.03 | 2.5E+00 | AJ271844.1 | NT | Aspergillus nidulans recQ gene for DNA helicase, exons 1-4 |
| 5934 | 19120 | 32431 | 2.24 | 2.5E+00 | P13485 | SWISSPROT | TEICHOIC ACID BIOSYNTHESIS PROTEIN F |
| 5934 | 19120 | 32432 | 2.24 | 2.5E+00 | P13485 | SWISSPROT | TEICHOIC ACID BIOSYNTHESIS PROTEIN F |
| 6586 | 19120 | 32431 | 1.42 | 2.5E+00 | P13485 | SWISSPROT | TEICHOIC ACID BIOSYNTHESIS PROTEIN F |
| 6586 | 19120 | 32432 | 1.42 | 2.5E+00 | P13485 | SWISSPROT | TEICHOIC ACID BIOSYNTHESIS PROTEIN F |
| 6868 | 20020 | 33429 | 0.77 | 2.5E+00 | D30052.1 | NT | Vibrio cholerae ctxA gene and ctxB gene for cholera toxins, complete cds |
| 7936 | 20986 | 34494 | 1.19 | 2.5E+00 | AW949158.1 | EST_HUMAN | QV4-FT0005-110500-205-g07 FT0005 Homo sapiens cDNA |
| 7985 | 21034 | 34547 | 0.62 | 2.5E+00 | 4502902 | NT | Homo sapiens clathrin, heavy polypeptide-like 1 (CLTCL1) mRNA |
| 9304 | 22380 | 35931 | 1.55 | 2.5E+00 | D50307.1 | NT | Rice DNA for aldolase C-1, complete cds |
| 10057 | 23095 | 36697 | 0.71 | 2.5E+00 | BE297758.1 | EST_HUMAN | 601175779F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531090 5' |
| 11832 | 24821 | | 1.39 | 2.5E+00 | P40170 | SWISSPROT | DNAJ PROTEIN |
| 12216 | 25167 | | 1.85 | 2.5E+00 | AF289665.1 | NT | Mus musculus EIF4H gene, partial cds; LIMK1 gene, complete cds; and ELN gene, partial cds |
| 3078 | 16254 | 29276 | 0.89 | 2.4E+00 | M24282.1 | NT | Chicken alpha-3 collagen type VI mRNA, 3' end |
| 5027 | 18156 | 31134 | 4.93 | 2.4E+00 | 4503362 | NT | Homo sapiens double C2-like domains, alpha (DOC2A) mRNA |

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## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6134 | 19313 | 32652 | 4.09 | 2.4E+00 | P02843 | SWISSPROT | VITELLOGENIN I PRECURSOR (YOLK PROTEIN 1) |
| 7638 | 20611 | 34085 | 0.71 | 2.4E+00 | BF667502.1 | EST_HUMAN | 602120856F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4278012 5' |
| 7538 | 20611 | 34086 | 0.71 | 2.4E+00 | BF667502.1 | EST_HUMAN | 602120856F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4278012 5' |
| 8334 | 21416 | 34941 | 2.06 | 2.4E+00 | P26842 | SWISSPROT | CD27L RECEPTOR PRECURSOR (T-CELL ACTIVATION ANTIGEN CD27) (T14) |
| 8334 | 21416 | 34942 | 2.06 | 2.4E+00 | P26842 | SWISSPROT | CD27L RECEPTOR PRECURSOR (T-CELL ACTIVATION ANTIGEN CD27) (T14) |
| 8406 | 21487 |  | 2.8 | 2.4E+00 | AE001486.1 | NT | Helicobacter pylori, strain J99 section 47 of 132 of the complete genome |
| 8852 | 21931 |  | 1.72 | 2.4E+00 | AW875126.1 | EST_HUMAN | RC2-PT0004-031299-011-d05 PT0004 Homo sapiens cDNA |
| 9028 | 22107 | 35648 | 8.99 | 2.4E+00 | P24091 | SWISSPROT | ENDOCHITINASE B PRECURSOR (CHN-B) |
| 10244 | 23279 | 36874 | 2.26 | 2.4E+00 | P13673 | SWISSPROT | SKIN GRANULE PROTEIN PRECURSOR |
| 10244 | 23279 | 36875 | 2.26 | 2.4E+00 | P13673 | SWISSPROT | SKIN GRANULE PROTEIN PRECURSOR |
| 10313 | 23348 | 36954 | 2.31 | 2.4E+00 | X92511.1 | NT | H.sapiens CTGF gene and promoter region |
| 10449 | 23484 |  | 7.28 | 2.4E+00 | P09099 | SWISSPROT | XYLULOSE KINASE (XYLULOKINASE) |
| 10528 | 23563 | 37169 | 1.64 | 2.4E+00 | BE326702.1 | EST_HUMAN | hr63f06.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3133187 3' |
| 10528 | 23563 | 37170 | 1.64 | 2.4E+00 | BE326702.1 | EST_HUMAN | hr63f06.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3133187 3' |
| 10818 | 23851 | 37474 | 1.06 | 2.4E+00 | Q51481 | SWISSPROT | DENITRIFICATION REGULATORY PROTEIN NIRQ |
| 11335 | 24398 | 38047 | 1.36 | 2.4E+00 | Y14079.1 | NT | Bacillus subtilis chromosomal DNA, region 75 degrees: glpPFKD operon and downstream |
| 11640 | 24720 | 38413 | 2.44 | 2.4E+00 | AF158652.2 | NT | Fragaria x ananassa cytosolic ascorbate peroxidase (ApxSC) gene, ApxSC-c allele, complete cds |
| 1282 | 14438 | 27607 | 9.98 | 2.3E+00 | Z46724.1 | NT | G.domesticus artificial single chain antibody gene (L3) |
| 4237 | 17383 |  | 1.41 | 2.3E+00 | AJ401081.1 | NT | Bos taurus partial cytb gene for cytochrome b |
| 5957 | 19143 |  | 0.91 | 2.3E+00 | N86245.1 | EST_HUMAN | J7340F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone J7340 5' similar to PROLYLCARBOXYPEPTIDASE |
| 7612 | 20682 | 34158 | 2.75 | 2.3E+00 | 6978554 | NT | Rattus norvegicus ATPase, Ca++ transporting, ubiquitous (Atp2a3), mRNA |
| 7771 | 26221 |  | 2.37 | 2.3E+00 | P07199 | SWISSPROT | MAJOR CENTROMERE AUTOANTIGEN B (CENTROMERE PROTEIN B) (CENP-B) |
| 7958 | 21008 | 34518 | 1.28 | 2.3E+00 | X60265.1 | NT | M.mazei dnaK and dnaJ genes homologues coding for DnaK and DnaJ |
| 9310 | 22386 | 35938 | 0.52 | 2.3E+00 | 5835317 | NT | Polypterus ornatipinnis mitochondrion, complete genome |
| 9371 | 22446 | 36008 | 1.66 | 2.3E+00 | Q11127 | SWISSPROT | ALPHA-(1,3)-FUCOSYLTRANSFERASE (GALACTOSIDE 3-L-FUCOSYLTRANSFERASE) (FUCOSYLTRANSFERASE 4) (FUCT-IV) |
| 11041 | 24120 | 37753 | 2.72 | 2.3E+00 | Q07076 | SWISSPROT | ANNEXIN VII (SYNEXIN) |
| 12075 | 25056 | 38763 | 2.14 | 2.3E+00 | BF541987.1 | EST_HUMAN | 602069121F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4068173 5' |
| 12075 | 25056 | 38764 | 2.14 | 2.3E+00 | BF541987.1 | EST_HUMAN | 602069121F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4068173 5' |
| 12445 | 25315 | 32091 | 7.41 | 2.3E+00 | BE895237.1 | EST_HUMAN | 601433673F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918643 5' |
| 4126 | 17280 | 30276 | 1.06 | 2.2E+00 | AF020528.1 | NT | Magnaporthe grisea Class IV chitin synthase (chs4) gene, complete cds |
| 4432 | 17572 | 30553 | 4.12 | 2.2E+00 | D67071.1 | NT | Rat gene for regucalcin, exon1 (non-coding exon) |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4432 | 17572 | 30554 | 4.12 | 2.2E+00 | D67071.1 | NT | Rat gene for regucalcin, exon1 (non-coding exon) |
| 5458 | 18658 | 31636 | 11.22 | 2.2E+00 | O88307 | SWISSPROT | SORTILIN-RELATED RECEPTOR PRECURSOR (SORTING PROTEIN-RELATED RECEPTOR CONTAINING LDLR CLASS A REPEATS) (MSORLA) (SORLA-1) (LOW-DENSITY LIPOPROTEIN RECEPTOR RELATIVE WITH 11 LIGAND-BINDING REPEATS) (LDLR RELATIVE WITH 11 LIGAND-BINDING REPEATS) (LR11) (> |
| 5458 | 18658 | 31637 | 11.22 | 2.2E+00 | O88307 | SWISSPROT | SORTILIN-RELATED RECEPTOR PRECURSOR (SORTING PROTEIN-RELATED RECEPTOR CONTAINING LDLR CLASS A REPEATS) (MSORLA) (SORLA-1) (LOW-DENSITY LIPOPROTEIN RECEPTOR RELATIVE WITH 11 LIGAND-BINDING REPEATS) (LDLR RELATIVE WITH 11 LIGAND-BINDING REPEATS) (LR11) (> |
| 5975 | 19160 | 32478 | 1.93 | 2.2E+00 | BE927220.1 | EST_HUMAN | RC3-CT0254-300800-022-e06 CT0254 Homo sapiens cDNA |
| 5975 | 19160 | 32479 | 1.93 | 2.2E+00 | BE927220.1 | EST_HUMAN | RC3-CT0254-300800-022-e06 CT0254 Homo sapiens cDNA |
| 6187 | 19363 | 32711 | 9.39 | 2.2E+00 | BE250383.1 | EST_HUMAN | 600943401T1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2959777 3' |
| 6484 | 19651 | 33013 | 2.87 | 2.2E+00 | Q00336 | SWISSPROT | MINOR VIRION STRUCTURAL PROTEIN MU-2 |
| 6730 | 19886 | 33278 | 3.14 | 2.2E+00 | P51459 | SWISSPROT | INSULIN-LIKE GROWTH FACTOR II PRECURSOR (IGF-II) (SOMATOMEDIN A) |
| 7097 | 18524 |  | 3.4 | 2.2E+00 | AA594574.1 | EST_HUMAN | nl95b02.s1 NCI_CGAP_Co10 Homo sapiens cDNA clone IMAGE:1058379 3' |
| 7470 | 20546 | 34017 | 0.83 | 2.2E+00 | AA137027.1 | EST_HUMAN | zn97f04.r1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:566143 5' |
| 7783 | 20839 | 34332 | 11.91 | 2.2E+00 | AA449012.1 | EST_HUMAN | zx05g10.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:785634 5' |
| 7866 | 20920 | 34427 | 0.66 | 2.2E+00 | P54918 | SWISSPROT | ALANINE RACEMASE |
| 8294 | 21376 | 34896 | 0.65 | 2.2E+00 | BE301560.1 | EST_HUMAN | bb17h12.x1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:2963207 3' similar to gb:D45836 Mouse mRNA for nuclear pore-targeting-complex component of (MOUSE); |
| 8294 | 21376 | 34897 | 0.65 | 2.2E+00 | BE301560.1 | EST_HUMAN | bb17h12.x1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:2963207 3' similar to gb:D45836 Mouse mRNA for nuclear pore-targeting-complex component of (MOUSE); |
| 9542 | 22607 |  | 12.49 | 2.2E+00 | BE741678.1 | EST_HUMAN | 601594733F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3948561 5' |
| 9768 | 25860 |  | 2.12 | 2.2E+00 | Q04706 | SWISSPROT | TRANSPOSON TY1 PROTEIN A |
| 10259 | 23294 | 36890 | 1.12 | 2.2E+00 | AI290373.1 | EST_HUMAN | qm69b03.x1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:1893965 3' similar to gb:Y00433 GLUTATHIONE PEROXIDASE (HUMAN); |
| 10259 | 23294 | 36891 | 1.12 | 2.2E+00 | AI290373.1 | EST_HUMAN | qm69b03.x1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:1893965 3' similar to gb:Y00433 GLUTATHIONE PEROXIDASE (HUMAN); |
| 10301 | 23336 | 36941 | 3.04 | 2.2E+00 | BF246782.1 | EST_HUMAN | 601855591F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4075391 5' |
| 10673 | 23707 | 37315 | 2.6 | 2.2E+00 | AF183416.1 | NT | Homo sapiens ovarian granulosa cell 13.0 kDa protein hGR74 homolog mRNA, complete cds |
| 11726 | 23912 | 37536 | 3.3 | 2.2E+00 | P07911 | SWISSPROT | UROMODULIN PRECURSOR (TAMM-HORSFALL URINARY GLYCOPROTEIN) (THP) |
| 11915 | 24902 | 38605 | 6.04 | 2.2E+00 | P10407 | SWISSPROT | EARLY E1A 28 KD PROTEIN |
| 583 | 16016 | 26795 | 13.2 | 2.1E+00 | AF132612.2 | NT | Mus musculus pre-T cell receptor alpha gene, enhancer region and upstream region |
| 3678 | 16841 |  | 1.19 | 2.1E+00 | AW449366.1 | EST_HUMAN | UI-H-BI3-aki-e-08-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2734550 3' |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6260 | 19434 | | 0.97 | 2.1E+00 | P75357 | SWISSPROT | HYPOTHETICAL PROTEIN MG302 HOMOLOG |
| 6947 | 20260 | 33698 | 3.51 | 2.1E+00 | O70159 | SWISSPROT | ALPHA-2-HS-GLYCOPROTEIN PRECURSOR (FETUIN-A) |
| 7169 | 20302 | 33745 | 0.77 | 2.1E+00 | 4503430 | NT | Homo sapiens dysferlin, limb girdle muscular dystrophy 2B (autosomal recessive) (DYSF) mRNA, and translated products |
| 7191 | 20056 | 33466 | 5.88 | 2.1E+00 | N29575.1 | EST_HUMAN | yy08a10.s1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:270618 3' similar to gb:M55654 TRANSCRIPTION INITIATION FACTOR TFIID (HUMAN); |
| 8694 | 21774 | | 2.43 | 2.1E+00 | AU123630.1 | EST_HUMAN | AU123630 NT2RM2 Homo sapiens cDNA clone NT2RM2000671 5' |
| 1223 | 14383 | 27444 | 1.32 | 2.0E+00 | AF180527.1 | NT | Homo sapiens p22Dokdel (DOKDEL) mRNA, complete cds |
| 1223 | 14383 | 27445 | 1.32 | 2.0E+00 | AF180527.1 | NT | Homo sapiens p22Dokdel (DOKDEL) mRNA, complete cds |
| 1366 | 14520 | 27595 | 1.37 | 2.0E+00 | AF204927.1 | NT | Oryctolagus cuniculus Na+,K+-ATPase beta 1 subunit mRNA, complete cds |
| 1606 | 14759 | | 3.09 | 2.0E+00 | P25582 | SWISSPROT | PUTATIVE RRNA METHYLTRANSFERASE SPB1 |
| 2216 | 16350 | 28480 | 7.2 | 2.0E+00 | Z78279.1 | NT | R.norvegicus mRNA for collagen alpha1 type I |
| 2216 | 15350 | 28481 | 7.2 | 2.0E+00 | Z78279.1 | NT | R.norvegicus mRNA for collagen alpha1 type I |
| 4216 | 17365 | 30353 | 1.71 | 2.0E+00 | AW664496.1 | EST_HUMAN | hi13c05.x1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2972168 3' similar to gb:X01677 GLYCERALDEHYDE 3-PHOSPHATE DEHYDROGENASE, LIVER (HUMAN); |
| 4216 | 17365 | 30354 | 1.71 | 2.0E+00 | AW664496.1 | EST_HUMAN | hi13c05.x1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2972168 3' similar to gb:X01677 GLYCERALDEHYDE 3-PHOSPHATE DEHYDROGENASE, LIVER (HUMAN); |
| 7722 | 20786 | | 0.96 | 2.0E+00 | P07566 | SWISSPROT | STRUCTURAL POLYPROTEIN [CONTAINS: NUCLEOCAPSID PROTEIN C; MEMBRANE GLYCOPROTEINS E1 AND E2] |
| 8214 | 21296 | 34815 | 4 | 2.0E+00 | AB008676.1 | NT | Escherichia coli 0157 DNA, map position at 46 min., complete cds |
| 8214 | 21296 | 34816 | 4 | 2.0E+00 | AB008676.1 | NT | Escherichia coli 0157 DNA, map position at 46 min., complete cds |
| 8214 | 21296 | 34817 | 4 | 2.0E+00 | AB008676.1 | NT | Escherichia coli 0157 DNA, map position at 46 min., complete cds |
| 9122 | 22201 | 35743 | 3.04 | 2.0E+00 | F31500.1 | EST_HUMAN | HSPD22703 HM3 Homo sapiens cDNA clone s4000117B08 |
| 12815 | 26022 | 31670 | 6.76 | 2.0E+00 | 5834843 | NT | Gallus gallus mitochondrion, complete genome |
| 5715 | 18908 | 32202 | 4.28 | 1.9E+00 | 6754389 | NT | Mus musculus inositol 1,4,5-triphosphate receptor 1 (Itpr1), mRNA |
| 5715 | 18908 | 32203 | 4.28 | 1.9E+00 | 6754389 | NT | Mus musculus inositol 1,4,5-triphosphate receptor 1 (Itpr1), mRNA |
| 6225 | 19400 | 32750 | 1.2 | 1.9E+00 | BE969695.1 | EST_HUMAN | 601679636F1 NIH_MGC_78 Homo sapiens cDNA clone IMAGE:3949881 5' |
| 6792 | 19947 | | 0.92 | 1.9E+00 | AW845689.1 | EST_HUMAN | MR0-CT0063-071099-002-g02 CT0063 Homo sapiens cDNA |
| 6888 | 20040 | | 1.91 | 1.9E+00 | Q63627 | SWISSPROT | CTD-BINDING SR-LIKE PROTEIN RA4 |
| 8653 | 21733 | 35272 | 2.21 | 1.9E+00 | P02467 | SWISSPROT | COLLAGEN ALPHA 2(I) CHAIN PRECURSOR |
| 8653 | 21733 | 35273 | 2.21 | 1.9E+00 | P02467 | SWISSPROT | COLLAGEN ALPHA 2(I) CHAIN PRECURSOR |
| 8859 | 21938 | | 3.32 | 1.9E+00 | BF360206.1 | EST_HUMAN | CM3-MT0114-010900-323-h12 MT0114 Homo sapiens cDNA |
| 9095 | 22174 | | 1.86 | 1.9E+00 | O51781 | SWISSPROT | ARGININE DEIMINASE (ADI) (ARGININE DIHYDROLASE) (AD) |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9830 | 22870 | 36452 | 0.63 | 1.9E+00 | AA669125.1 | EST_HUMAN | ab94a04.s1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:854574 3' similar to contains Alu repetitive element;contains element L1 L1 repetitive element ; |
| 10790 | 23823 | 37447 | 0.67 | 1.9E+00 | AF248269.1 | NT | Homo sapiens gag-pro-pol precursor protein gene, partial cds |
| 3162 | 16337 | 29346 | 1.69 | 1.8E+00 | P21004 | SWISSPROT | PROTEIN B8 PRECURSOR |
| 3190 | 16365 | 29370 | 2.15 | 1.8E+00 | U04356.1 | NT | Synechococcus sp. PCC7942 copper transporting P-ATPase (ctaA) and ATP synthase epsilon subunit (atpE) genes, complete cds |
| 3190 | 16365 | 29371 | 2.16 | 1.8E+00 | U04356.1 | NT | Synechococcus sp. PCC7942 copper transporting P-ATPase (ctaA) and ATP synthase epsilon subunit (atpE) genes, complete cds |
| 5988 | 19173 |  | 1.63 | 1.8E+00 | P18502 | SWISSPROT | HEDGEHOG RECEPTOR (PATCHED PROTEIN) |
| 6230 | 19405 | 32755 | 2.02 | 1.8E+00 | BF311999.1 | EST_HUMAN | 601897854F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4127364 5' |
| 6528 | 19692 |  | 1.28 | 1.8E+00 | BF683327.1 | EST_HUMAN | 602139470F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4298272 5' |
| 6879 | 20031 | 33441 | 1.15 | 1.8E+00 | BF305652.1 | EST_HUMAN | 601893489F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4139038 5' |
| 7204 | 20069 | 33479 | 1.22 | 1.8E+00 | P21249 | SWISSPROT | MAJOR ANTIGEN |
| 7411 | 20489 |  | 0.8 | 1.8E+00 | P27127 | SWISSPROT | LIPOPOLYSACCHARIDE 1,6-GALACTOSYLTRANSFERASE (UDP-D-GALACTOSE--(GLUCOSYL)LIPOPOLYSACCHARIDE-ALPHA-1,3-D-GALACTOSYLTRANSFERASE) |
| 8308 | 21390 | 34913 | 0.98 | 1.8E+00 | P11369 | SWISSPROT | RETROVIRUS-RELATED POL POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; ENDONUCLEASE] |
| 8308 | 21390 | 34914 | 0.98 | 1.8E+00 | P11369 | SWISSPROT | RETROVIRUS-RELATED POL POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; ENDONUCLEASE] |
| 9066 | 22134 | 35679 | 2.28 | 1.8E+00 | O43281 | SWISSPROT | EMBRYONAL FYN-ASSOCIATED SUBSTRATE (HEFS) |
| 9376 | 22451 | 36013 | 0.78 | 1.8E+00 | R31042.1 | EST_HUMAN | yh72c08.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:135278 5' |
| 9462 | 22519 | 36081 | 0.82 | 1.8E+00 | AW880004.1 | EST_HUMAN | QV0-OT0030-070300-148-a03 OT0030 Homo sapiens cDNA |
| 9996 | 23034 | 36626 | 0.47 | 1.8E+00 | P06828 | SWISSPROT | FUSION GLYCOPROTEIN PRECURSOR [CONTAINS: FUSION GLYCOPROTEIN F2; FUSION GLYCOPROTEIN F1] |
| 10054 | 23092 | 36694 | 0.94 | 1.8E+00 | P27050 | SWISSPROT | CHITINASE D PRECURSOR |
| 10490 | 23525 |  | 4.71 | 1.8E+00 | AF111849.1 | NT | Homo sapiens PRO0530 mRNA, complete cds |
| 10777 | 23810 |  | 0.75 | 1.8E+00 | P44325 | SWISSPROT | CYTIDINE DEAMINASE (CYTIDINE AMINOHYDROLASE) (CDA) |
| 12575 | 25994 |  | 4.97 | 1.8E+00 | AF314254.1 | NT | Chlamydomonas reinhardtii alternative oxidase 1 (AOX1) gene, nuclear gene encoding mitochondrial protein |
| 12667 | 25444 |  | 6.01 | 1.8E+00 | 9506404 | NT | Rattus norvegicus Actin-related protein complex 1b (Arpc1b), mRNA |
| 13005 | 25887 | 31854 | 1.45 | 1.8E+00 | BF212412.1 | EST_HUMAN | 601813714F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4048251 5' |
| 1132 | 14297 | 27352 | 1.68 | 1.7E+00 | Q60114 | SWISSPROT | LEVANSUCRASE (BETA-D-FRUCTOFURANOSYL TRANSFERASE) (SUCROSE 6-FRUCTOSYL TRANSFERASE) |
| 2345 | 15476 | 28609 | 4.9 | 1.7E+00 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2445 | 15573 | 28702 | 1.49 | 1.7E+00 | AI141067.1 | EST_HUMAN | oz43h05.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1678137 3' |
| 4581 | 17718 | 30701 | 0.98 | 1.7E+00 | Q60114 | SWISSPROT | LEVANSUCRASE (BETA-D-FRUCTOFURANOSYL TRANSFERASE) (SUCROSE 6-FRUCTOSYL TRANSFERASE) |
| 5730 | 18923 | 32216 | 1.73 | 1.7E+00 | BE063546.1 | EST_HUMAN | CM0-BT0282-171299-127-e05 BT0282 Homo sapiens cDNA |
| 5730 | 18923 | 32217 | 1.73 | 1.7E+00 | BE063546.1 | EST_HUMAN | CM0-BT0282-171299-127-e05 BT0282 Homo sapiens cDNA |
| 6141 | 19319 | 32661 | 3.02 | 1.7E+00 | Q9TTR8 | SWISSPROT | COUP TRANSCRIPTION FACTOR 1 (COUP-TF1) (COUP-TF I) |
| 6682 | 19840 | 33230 | 0.67 | 1.7E+00 | P35816 | SWISSPROT | [PYRUVATE DEHYDROGENASE (LIPOAMIDE)]-PHOSPHATASE, MITOCHONDRIAL PRECURSOR (PDP) (PYRUVATE DEHYDROGENASE PHOSPHATASE, CATALYTIC SUBUNIT) (PDPC) |
| 7367 | 20446 | 33908 | 1.18 | 1.7E+00 | Q03703 | SWISSPROT | HYPOTHETICAL 38.0 KD PROTEIN IN CAT2-AMD1 INTERGENIC REGION |
| 7367 | 20446 | 33909 | 1.18 | 1.7E+00 | Q03703 | SWISSPROT | HYPOTHETICAL 38.0 KD PROTEIN IN CAT2-AMD1 INTERGENIC REGION |
| 8038 | 21121 | 34641 | 1.1 | 1.7E+00 | AF021335.1 | NT | Mus musculus T cell receptor gamma locus, TCR gamma 2 and gamma 4 gene clusters |
| 8222 | 21304 | 34825 | 1.08 | 1.7E+00 | 6755716 | NT | Mus musculus T-cell acute lymphocytic leukemia 1 (Tal1), mRNA |
| 8252 | 21334 | 34852 | 0.61 | 1.7E+00 | BF530630.1 | EST_HUMAN | 602071917F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4214669 5' |
| 8739 | 21818 | 35352 | 0.75 | 1.7E+00 | AF245513.1 | NT | Hippoglossus hippoglossus interferon inducible Mx protein (Mx) mRNA, complete cds |
| 8828 | 21907 | | 1.63 | 1.7E+00 | BF308000.1 | EST_HUMAN | 601894255F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4140084 5' |
| 8901 | 21980 | 35519 | 0.66 | 1.7E+00 | X69063.1 | NT | M.musculus Ank-1 mRNA for erythroid ankyrin |
| 8901 | 21980 | 35520 | 0.66 | 1.7E+00 | X69063.1 | NT | M.musculus Ank-1 mRNA for erythroid ankyrin |
| 9014 | 22093 | 35633 | 1.03 | 1.7E+00 | U19832.1 | NT | Rattus norvegicus SA gene, partial cds |
| 9350 | 25859 | 35981 | 2.44 | 1.7E+00 | O60479 | SWISSPROT | HOMEOBOX PROTEIN DLX-3 |
| 9350 | 25859 | 35982 | 2.44 | 1.7E+00 | O60479 | SWISSPROT | HOMEOBOX PROTEIN DLX-3 |
| 9806 | 22846 | | 1 | 1.7E+00 | AF161380.1 | NT | Homo sapiens HSPC262 mRNA, partial cds |
| 10375 | 23410 | | 0.54 | 1.7E+00 | AW953681.1 | EST_HUMAN | EST365751 MAGE resequences, MAGC Homo sapiens cDNA |
| 10857 | 23890 | 37509 | 0.47 | 1.7E+00 | BE878260.1 | EST_HUMAN | 601488170F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3890464 5' |
| 10857 | 23890 | 37510 | 0.47 | 1.7E+00 | BE878260.1 | EST_HUMAN | 601488170F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3890464 5' |
| 11896 | 24884 | 38582 | 1.67 | 1.7E+00 | W22424.1 | EST_HUMAN | 67B7 Human retina cDNA Tsp509I-cleaved sublibrary Homo sapiens cDNA not directional |
| 12523 | 25356 | 32066 | 1.94 | 1.7E+00 | AI678443.1 | EST_HUMAN | tu82d07.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2257549 3' similar to contains MSR1.t1 MSR1 repetitive element ; |
| 2090 | 15230 | 28352 | 19.53 | 1.6E+00 | AF199339.1 | NT | Homo sapiens lens epithelium-derived growth factor gene, alternatively spliced, complete cds |
| 2101 | 15241 | 28362 | 4.14 | 1.6E+00 | AF077374.1 | NT | Homo sapiens small proline-rich protein (SPRR3) gene, exons 1, 2, and 3 and complete cds |
| 2107 | 15246 | 28367 | 1.26 | 1.6E+00 | Y11344.1 | NT | Mus musculus ST6GalNAcIII gene, exon 2 |
| 2357 | 15488 | | 0.97 | 1.6E+00 | X98373.1 | NT | B.napus gene encoding endo-polygalacturonase |
| 3026 | 16202 | 29225 | 1.22 | 1.6E+00 | W58426.1 | EST_HUMAN | zd25f01.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:341689 5' similar to gb:D29805 N-ACETYLLACTOSAMINE SYNTHASE (HUMAN); |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3857 | 17017 | | 1.06 | 1.6E+00 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 4142 | 17294 | | 6.05 | 1.6E+00 | BF570077.1 | EST_HUMAN | 602186095T1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4310591 3' |
| 4472 | 17612 | 30590 | 1.25 | 1.6E+00 | AF155827.1 | NT | Homo sapiens proliferation-associated SNF2-like protein (SMARCA6) mRNA, complete cds |
| 4472 | 17612 | 30591 | 1.25 | 1.6E+00 | AF155827.1 | NT | Homo sapiens proliferation-associated SNF2-like protein (SMARCA6) mRNA, complete cds |
| 5184 | 18306 | 31270 | 0.59 | 1.6E+00 | AF127897.1 | NT | Saimiri boliviensis olfactory receptor (SBO27) gene, partial cds |
| 5194 | 18316 | 31284 | 2.83 | 1.6E+00 | Y11344.1 | NT | Mus musculus ST6GalNAcIII gene, exon 2 |
| 5194 | 18316 | 31285 | 2.83 | 1.6E+00 | Y11344.1 | NT | Mus musculus ST6GalNAcIII gene, exon 2 |
| 5948 | 19134 | 32447 | 2.38 | 1.6E+00 | L04808.1 | NT | Brachydanio rerio MHC class II DA-beta-2*01 gene, 3' end |
| 6035 | 19218 | 32540 | 0.78 | 1.6E+00 | AF005631.1 | NT | Homo sapiens transglutaminese type I (TgaseI) gene, promoter region |
| 6599 | 19759 | 33147 | 0.91 | 1.6E+00 | BF380703.1 | EST_HUMAN | IL2-UT0073-060900-145-E02 UT0073 Homo sapiens cDNA |
| 6849 | 20002 | 33411 | 1.05 | 1.6E+00 | AW294881.1 | EST_HUMAN | UI-H-BI2-ahr-b-04-0-UI.s1 NCI_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2727511 3' |
| 7394 | 20472 | 33938 | 2.37 | 1.6E+00 | BE697267.1 | EST_HUMAN | RC0-CT0415-200700-032-c10 CT0415 Homo sapiens cDNA |
| 8219 | 21301 | | 1.3 | 1.6E+00 | Q46378 | SWISSPROT | VIRULENCE FACTOR MVIN HOMOLOG |
| 8574 | 21655 | 35196 | 3.3 | 1.6E+00 | AJ297131.1 | NT | Mus musculus SIL, MAP_17, CYP_a, SCL & CYP_b genes |
| 9101 | 22180 | 35724 | 1.07 | 1.6E+00 | 11437222 | NT | Homo sapiens hypothetical protein PRO0971 (PRO0971), mRNA |
| 9101 | 22180 | 35725 | 1.07 | 1.6E+00 | 11437222 | NT | Homo sapiens hypothetical protein PRO0971 (PRO0971), mRNA |
| 9272 | 22348 | 35898 | 0.49 | 1.6E+00 | BE388331.1 | EST_HUMAN | 601283925F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3605647 5' |
| 9659 | 25857 | 34615 | 1.05 | 1.6E+00 | X52046.1 | NT | M.musculus COL3A1 gene for collagen alpha-I |
| 9659 | 25857 | 34616 | 1.05 | 1.6E+00 | X52046.1 | NT | M.musculus COL3A1 gene for collagen alpha-I |
| 9786 | 22826 | | 0.7 | 1.6E+00 | AF043466.1 | NT | Thermoanaerobacter ethanolicus D-xylose-binding protein (xylF) gene, complete cds |
| 9935 | 22974 | 36566 | 1.49 | 1.6E+00 | T41290.1 | EST_HUMAN | ph6b6_19/1TV Outward Alu-primed hncDNA library Homo sapiens cDNA clone ph6b6_19/1TV |
| 10388 | 23423 | 37029 | 1.09 | 1.6E+00 | AW835644.1 | EST_HUMAN | QV4-LT0016-090200-100-d07 LT0016 Homo sapiens cDNA |
| 10388 | 23423 | 37030 | 1.09 | 1.6E+00 | AW835644.1 | EST_HUMAN | QV4-LT0016-090200-100-d07 LT0016 Homo sapiens cDNA |
| 10552 | 23587 | 37195 | 0.52 | 1.6E+00 | AF037352.1 | NT | Mus musculus T cell receptor gamma locus, TCR gamma 1 and gamma 3 gene clusters |
| 11010 | 24089 | 37726 | 1.77 | 1.6E+00 | P54817 | SWISSPROT | CAPSID PROTEIN P40 [CONTAINS: ASSEMBLIN (PROTEASE) ; CAPSID ASSEMBLY PROTEIN] |
| 11082 | 19218 | 32540 | 4.8 | 1.6E+00 | AF005631.1 | NT | Homo sapiens transglutaminese type I (TgaseI) gene, promoter region |
| 12006 | 24991 | 38695 | 3.68 | 1.6E+00 | AF104313.1 | NT | Homo sapiens unknown mRNA |
| 33 | 13271 | 26276 | 2.95 | 1.5E+00 | U53449.1 | NT | Rattus norvegicus jun dimerization protein 2 (jdp-2) mRNA, complete cds |
| 241 | 13463 | 26492 | 2.44 | 1.5E+00 | AE002201.2 | NT | Chlamydophila pneumoniae AR39, section 32 of 94 of the complete genome |
| 636 | 13821 | | 1.81 | 1.5E+00 | 6752961 | NT | Mus musculus a disintegrin and metalloproteinase domain (ADAM) 15 (metargidin) (Adam15), mRNA |
| 2481 | 15608 | 28732 | 1.56 | 1.5E+00 | AJ131402.1 | NT | Potato virus A RNA complete genome, isolate U |
| 2584 | 15709 | 28828 | 2.02 | 1.6E+00 | 6678350 | NT | Mus musculus T-cell lymphoma invasion and metastasis 1 (Tiam1), mRNA |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3208 | 15608 | 28732 | 1.75 | 1.5E+00 | AJ131402.1 | NT | Potato virus A RNA complete genome, isolate U |
| 3462 | 16629 | 29649 | 0.77 | 1.5E+00 | AE001945.1 | NT | Deinococcus radiodurans R1 section 82 of 229 of the complete chromosome 1 |
| 5846 | 19036 | 32342 | 0.71 | 1.5E+00 | AI655301.1 | EST_HUMAN | tt12f10.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2240587 3' similar to TR:O00237 O00237 HKF-1. ; |
| 5846 | 19036 | 32343 | 0.71 | 1.5E+00 | AI655301.1 | EST_HUMAN | tt12f10.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2240587 3' similar to TR:O00237 O00237 HKF-1. ; |
| 6536 | 19699 | 33072 | 2.43 | 1.5E+00 | R17879.1 | EST_HUMAN | yg10e02.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:31693 5' |
| 7278 | 20361 | | 1.68 | 1.5E+00 | BE785356.1 | EST_HUMAN | 601478745F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3881555 5' |
| 7311 | 20393 | 33853 | 16.24 | 1.5E+00 | P47179 | SWISSPROT | HYPOTHETICAL 118.4 KD PROTEIN IN BAT2-DAL5 INTERGENIC REGION PRECURSOR |
| 7311 | 20393 | 33854 | 16.24 | 1.5E+00 | P47179 | SWISSPROT | HYPOTHETICAL 118.4 KD PROTEIN IN BAT2-DAL5 INTERGENIC REGION PRECURSOR |
| 7500 | 20575 | 34048 | 0.61 | 1.5E+00 | AA889259.1 | EST_HUMAN | ak26f10.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1407115 3' |
| 7768 | 20826 | 34317 | 0.77 | 1.5E+00 | AI003264.1 | EST_HUMAN | an07b11.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:1684893 3' similar to gb:S95936 SEROTRANSFERRIN PRECURSOR (HUMAN); |
| 8313 | 21395 | 34920 | 0.9 | 1.5E+00 | BE887446.1 | EST_HUMAN | 601509586F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3911181 5' |
| 8367 | 21448 | 34971 | 0.5 | 1.5E+00 | AB040887.1 | NT | Homo sapiens mRNA for KIAA1454 protein, partial cds |
| 8846 | 21925 | 35463 | 1.09 | 1.5E+00 | K02138.1 | NT | Mouse germline IgM chain gene, mu-delta region |
| 9218 | 22296 | | 0.48 | 1.5E+00 | AB038516.1 | NT | Homo sapiens hGPIb alpha gene for platelet glycoprotein Ib alpha, complete cds |
| 9334 | 22410 | 35963 | 0.51 | 1.5E+00 | BF217818.1 | EST_HUMAN | 601882662F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4095135 5' |
| 9684 | 22733 | 36303 | 0.85 | 1.5E+00 | R81928.1 | EST_HUMAN | yj03h01.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:147697 5' |
| 9835 | 22875 | 36459 | 1.6 | 1.5E+00 | AW375697.1 | EST_HUMAN | QV3-CT0192-261099-008-d09 CT0192 Homo sapiens cDNA |
| 10064 | 23102 | 36705 | 6.49 | 1.5E+00 | BF376754.1 | EST_HUMAN | RC0-TN0078-150900-034-g05 TN0078 Homo sapiens cDNA |
| 10268 | 23293 | | 1.85 | 1.5E+00 | BF337944.1 | EST_HUMAN | 602035771F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4183865 5' |
| 10399 | 23434 | 37040 | 2.26 | 1.5E+00 | AA017689.1 | EST_HUMAN | ze38g06.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:361306 5' |
| 10399 | 23434 | 37041 | 2.26 | 1.5E+00 | AA017689.1 | EST_HUMAN | ze38g06.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:361306 5' |
| 11684 | 24683 | 38373 | 3.4 | 1.5E+00 | AL134197.1 | EST_HUMAN | DKFZp547P243_s1 547 (synonym: hfbr1) Homo sapiens cDNA clone DKFZp547P243 3' |
| 11834 | 24823 | | 7.68 | 1.5E+00 | X07380.1 | NT | Maize mitochondrial tRNA-Ser gene and tRNA-Phe pseudogene |
| 11929 | 24915 | 38617 | 1.39 | 1.5E+00 | AI400798.1 | EST_HUMAN | tg94d09.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2116433 3' |
| 11929 | 24915 | 38618 | 1.39 | 1.5E+00 | AI400798.1 | EST_HUMAN | tg94d09.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2116433 3' |
| 12515 | 26095 | 31662 | 1.61 | 1.5E+00 | D63480.1 | NT | Human mRNA for KIAA0146 gene, partial cds |
| 12765 | 25508 | | 3.92 | 1.5E+00 | AL445065.1 | NT | Thermoplasma acidophilum complete genome; segment 3/5 |
| 12888 | 25589 | | 2.17 | 1.5E+00 | 6978492 | NT | Rattus norvegicus 5 - Lipoxygenase (Alox5), mRNA |
| 13220 | 25794 | 31888 | 1.31 | 1.5E+00 | BF223935.1 | EST_HUMAN | 7q82b06.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE: 3' |
| 30 | 13268 | 26271 | 2.27 | 1.4E+00 | 7661685 | NT | Homo sapiens DKFZP586M0122 protein (DKFZP586M0122), mRNA |
| 30 | 13268 | 26272 | 2.27 | 1.4E+00 | 7661685 | NT | Homo sapiens DKFZP586M0122 protein (DKFZP586M0122), mRNA |

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Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2351 | 15482 | | 0.97 | 1.4E+00 | AF053357.1 | NT | Helicobacter pylori glutamine synthetase (glnA) gene, complete cds |
| 2411 | 15541 | | 9.39 | 1.4E+00 | U67922.1 | NT | Ovis aries prion protein gene, complete cds |
| 2734 | 15851 | 28964 | 1.7 | 1.4E+00 | X74463.1 | NT | Human papillomavirus type 7 genomic DNA |
| 2833 | 15947 | 29055 | 3.22 | 1.4E+00 | AF064564.2 | NT | Fugu rubripes neurofibromatosis type 1 (NF1), A-kinase anchor protein (AKAP84), BAW protein (BAW), and WSB1 protein (WSB1) genes, complete cds |
| 2833 | 15947 | 29056 | 3.22 | 1.4E+00 | AF064564.2 | NT | Fugu rubripes neurofibromatosis type 1 (NF1), A-kinase anchor protein (AKAP84), BAW protein (BAW), and WSB1 protein (WSB1) genes, complete cds |
| 3414 | 16583 | | 0.79 | 1.4E+00 | 5453733 | NT | Homo sapiens Mad4 homolog (MAD4) mRNA |
| 4370 | 17513 | 30493 | 1.13 | 1.4E+00 | AW900455.1 | EST_HUMAN | CM0-NN1005-140300-286-h06 NN1005 Homo sapiens cDNA |
| 4370 | 17513 | 30494 | 1.13 | 1.4E+00 | AW900455.1 | EST_HUMAN | CM0-NN1005-140300-286-h06 NN1005 Homo sapiens cDNA |
| 4708 | 17843 | | 1.51 | 1.4E+00 | BF681547.1 | EST_HUMAN | 602156687F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4297556 5' |
| 5317 | 18434 | | 0.94 | 1.4E+00 | Q07869 | SWISSPROT | PEROXISOME PROLIFERATOR ACTIVATED RECEPTOR ALPHA (PPAR-ALPHA) |
| 5488 | 18687 | 31705 | 1.73 | 1.4E+00 | AW054976.1 | EST_HUMAN | wt45g07.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2510460 3' |
| 5645 | 18839 | | 6.04 | 1.4E+00 | AB032983.1 | NT | Homo sapiens mRNA for KIAA1157 protein, partial cds |
| 6409 | 19578 | 32939 | 3.07 | 1.4E+00 | Q13472 | SWISSPROT | DNA TOPOISOMERASE III ALPHA |
| 6424 | 26214 | | 3.93 | 1.4E+00 | AB020712.1 | NT | Homo sapiens mRNA for KIAA0905 protein, complete cds |
| 6542 | 19705 | 33078 | 2.8 | 1.4E+00 | Q92777 | SWISSPROT | SYNAPSIN II |
| 6542 | 19705 | 33079 | 2.8 | 1.4E+00 | Q92777 | SWISSPROT | SYNAPSIN II |
| 6961 | 20189 | 33614 | 0.8 | 1.4E+00 | AW893057.1 | EST_HUMAN | CM3-NN0006-300300-132-b12 NN0006 Homo sapiens cDNA |
| 7438 | 20515 | 33988 | 1.99 | 1.4E+00 | AJ133269.1 | NT | Homo sapiens caveolin-1/-2 locus, Contig1, D7S522, genes CAV2 (exons 1, 2a, and 2b), CAV1 (exons 1 and 2) |
| 7454 | 20531 | 34005 | 1.14 | 1.4E+00 | AW467760.1 | EST_HUMAN | he23f05.x1 NCI_CGAP_CML1 Homo sapiens cDNA clone IMAGE:2919873 3' similar to contains Alu repetitive element; |
| 7514 | 20588 | 34062 | 0.7 | 1.4E+00 | P55268 | SWISSPROT | LAMININ BETA-2 CHAIN PRECURSOR (S-LAMININ) |
| 7514 | 20588 | 34063 | 0.7 | 1.4E+00 | P55268 | SWISSPROT | LAMININ BETA-2 CHAIN PRECURSOR (S-LAMININ) |
| 8530 | 21611 | | 0.72 | 1.4E+00 | P07683 | SWISSPROT | GLUCOAMYLASE PRECURSOR (GLUCAN 1,4-ALPHA-GLUCOSIDASE) (1,4-ALPHA-D-GLUCAN GLUCOHYDROLASE) |
| 8994 | 22073 | | 5.4 | 1.4E+00 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 9295 | 22371 | 35920 | 1.65 | 1.4E+00 | R20459.1 | EST_HUMAN | yg33f12.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:34345 5' |
| 9398 | 22472 | 36038 | 3.83 | 1.4E+00 | BE064667.1 | EST_HUMAN | RC1-BT0313-301299-012-f05 BT0313 Homo sapiens cDNA |
| 9432 | 22506 | 36072 | 0.65 | 1.4E+00 | AF134844.1 | NT | Sceloporus undulatus ornithine transcarbamylase (OTC) mRNA, complete cds |
| 10412 | 23447 | 37052 | 0.88 | 1.4E+00 | BF575545.1 | EST_HUMAN | 602133135F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4288137 5' |
| 10457 | 23492 | 37102 | 0.88 | 1.4E+00 | BE145374.1 | EST_HUMAN | IL5-HT0198-291099-008-C04 HT0198 Homo sapiens cDNA |
| 10457 | 23492 | 37103 | 0.88 | 1.4E+00 | BE145374.1 | EST_HUMAN | IL5-HT0198-291099-008-C04 HT0198 Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10744 | 23777 | 37390 | 0.96 | 1.4E+00 | D63441.1 | NT | Pandorina colemaniae chloroplast rbcL gene for ribulose bisphosphate carboxylase, partial cds |
| 10744 | 23777 | 37391 | 0.96 | 1.4E+00 | D63441.1 | NT | Pandorina colemaniae chloroplast rbcL gene for ribulose bisphosphate carboxylase, partial cds |
| 10852 | 23885 | 37504 | 1.15 | 1.4E+00 | Q07283 | SWISSPROT | TRICHOHYALIN |
| 11499 | 24557 | 38232 | 4.52 | 1.4E+00 | AB006682.1 | NT | Homo sapiens APECED mRNA for AIRE-1, complete cds |
| 11691 | 24689 | 38379 | 3.46 | 1.4E+00 | BE962107.2 | EST_HUMAN | 601655184R1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3845805 3' |
| 11691 | 24689 | 38380 | 3.46 | 1.4E+00 | BE962107.2 | EST_HUMAN | 601655184R1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3845805 3' |
| 11711 | 24751 | 38444 | 2.3 | 1.4E+00 | U30790.1 | NT | Pneumocystis carinii f. sp. ratti guanine nucleotide binding protein alpha subunit (pcg1) gene, complete cds |
| 11711 | 24751 | 38445 | 2.3 | 1.4E+00 | U30790.1 | NT | Pneumocystis carinii f. sp. ratti guanine nucleotide binding protein alpha subunit (pcg1) gene, complete cds |
| 12359 | 26012 |  | 2.01 | 1.4E+00 | AL161500.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 12 |
| 12785 | 26204 |  | 2.99 | 1.4E+00 | 11545836 | NT | Homo sapiens cutaneous T-cell lymphoma tumor antigen se70-2 (SE70-2), mRNA |
| 584 | 13776 |  | 1.96 | 1.3E+00 | Z73640.1 | NT | M.mucedo gene encoding 4-Dihydromethyl-trisporate dehydrogenase |
| 925 | 14100 | 27164 | 2.79 | 1.3E+00 | AJ271192.1 | NT | Cantharellus sp. partial 25S rRNA gene, isolate Tibet |
| 1153 | 14317 |  | 23.81 | 1.3E+00 | Y19213.1 | NT | Homo sapiens putative psihHbA pseudogene for hair keratin, exons 2 to 7 |
| 1325 | 14482 | 27549 | 14.36 | 1.3E+00 | 4507998 | NT | Homo sapiens zinc finger protein 157 (HZF22) (ZNF157) mRNA |
| 1325 | 14482 | 27550 | 14.36 | 1.3E+00 | 4507998 | NT | Homo sapiens zinc finger protein 157 (HZF22) (ZNF157) mRNA |
| 1387 | 14542 |  | 0.98 | 1.3E+00 | U61730.2 | NT | Coix lacryma-jobi dihydrodipicolinate synthase (dapA) gene, complete cds |
| 1641 | 14793 |  | 2.35 | 1.3E+00 | AE002338.2 | NT | Chlamydia muridarum, section 68 of 85 of the complete genome |
| 2316 | 15448 |  | 2.38 | 1.3E+00 | AB030447.1 | NT | Cyprinus carpio MRPb and MASPb genes for mannose-binding lectin-associated serine protease (MASP) and MASP-related protein, complete cds |
| 2615 | 15739 |  | 1.81 | 1.3E+00 | BE966735.2 | EST_HUMAN | 601661233R1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3915945 3' |
| 3005 | 16180 | 29201 | 0.86 | 1.3E+00 | 6755621 | NT | Mus musculus alpha-spectrin 1, erythroid (Spna1), mRNA |
| 3686 | 16849 | 29857 | 1.14 | 1.3E+00 | AF016494.1 | NT | Fugu rubripes gamma-aminobutyric acid receptor beta subunit gene, partial cds; 55kd erythrocyte membrane protein (P55), synaptic vesicle-associated integral membrane protein (VAMP-1), procollagen C-proteinase enhancer protein (PCOLCE) genes, complete c> |
| 5631 | 18825 | 31900 | 1 | 1.3E+00 | P19732 | SWISSPROT | PHENOL HYDROXYLASE P3 PROTEIN (PHENOL 2-MONOOXYGENASE P3 COMPONENT) |
| 5827 | 19017 | 32322 | 0.58 | 1.3E+00 | M27138.1 | NT | Human estradiol 17 beta-dehydrogenase gene, complete cds |
| 6142 | 19320 | 32662 | 7.56 | 1.3E+00 | AW362834.1 | EST_HUMAN | PM0-CT0289-291199-004-f08 CT0289 Homo sapiens cDNA |
| 6142 | 19320 | 32663 | 7.56 | 1.3E+00 | AW362834.1 | EST_HUMAN | PM0-CT0289-291199-004-f08 CT0289 Homo sapiens cDNA |
| 6547 | 19709 | 33085 | 1.14 | 1.3E+00 | M33496.1 | NT | D.melanogaster no-on-transient A gene product, complete cds |
| 6890 | 20042 |  | 0.71 | 1.3E+00 | Q00156 | SWISSPROT | HYPOTHETICAL GENE 64 PROTEIN |
| 6928 | 20243 |  | 0.58 | 1.3E+00 | P49940 | SWISSPROT | SPORE GERMINATION PROTEIN KB |
| 6978 | 20206 | 33634 | 1.04 | 1.3E+00 | M13918.2 | NT | Homo sapiens fibronectin receptor alpha-subunit precursor (ITGA5) mRNA, partial cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7092 | 20186 | 33610 | 1.16 | 1.3E+00 | BE538819.1 | EST_HUMAN | 601061420F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3447965 5' |
| 7249 | 20332 | 33779 | 0.96 | 1.3E+00 | BE243571.1 | EST_HUMAN | TCBAP1D0959 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP0959 |
| 7616 | 20686 | 34162 | 0.78 | 1.3E+00 | P24540 | SWISSPROT | ACYLPHOSPHATASE, ORGAN-COMMON TYPE ISOZYMES A AND B (ACYLPHOSPHATE PHOSPHOHYDROLASE) |
| 8494 | 21575 | 35112 | 1.78 | 1.3E+00 | AJ009912.1 | NT | Sus scrofa pip gene |
| 8642 | 21722 | 35259 | 2.28 | 1.3E+00 | BE963379.2 | EST_HUMAN | 601657145R1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3866195 3' |
| 8758 | 21837 | 35378 | 1.05 | 1.3E+00 | BE974280.1 | EST_HUMAN | 601680250R2 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3950532 3' |
| 8907 | 21986 |  | 1.87 | 1.3E+00 | 9910247 | NT | Homo sapiens GL004 protein (GL004), mRNA |
| 8990 | 22069 | 35609 | 0.89 | 1.3E+00 | AI927629.1 | EST_HUMAN | wo85a07.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2462100 3' |
| 9347 | 22423 | 35976 | 0.51 | 1.3E+00 | H42881.1 | EST_HUMAN | yo68c03.s1 Soares breast 3NbHBst Homo sapiens cDNA clone IMAGE:183076 3' |
| 9347 | 22423 | 35977 | 0.51 | 1.3E+00 | H42881.1 | EST_HUMAN | yo68c03.s1 Soares breast 3NbHBst Homo sapiens cDNA clone IMAGE:183076 3' |
| 9715 | 22780 |  | 5.02 | 1.3E+00 | AF042084.1 | NT | Homo sapiens heparan glucosaminyl N-deacetylase/N-sulfotransferase-2 gene, complete cds |
| 9724 | 22789 | 36359 | 2.47 | 1.3E+00 | X72019.1 | NT | S.alba phr-1 mRNA for photolyase |
| 9724 | 22789 | 36360 | 2.47 | 1.3E+00 | X72019.1 | NT | S.alba phr-1 mRNA for photolyase |
| 9823 | 22863 | 36444 | 1.21 | 1.3E+00 | AF059250.1 | NT | Homo sapiens lipoxygenase (ALOX12B) mRNA, complete cds |
| 9847 | 22887 |  | 0.47 | 1.3E+00 | AW024390.1 | EST_HUMAN | wv03f03.x1 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:2528477 3' similar to gb:M31622 TRANSCRIPTION FACTOR ITF-1 (HUMAN); |
| 9871 | 22911 | 36496 | 1.65 | 1.3E+00 | O00754 | SWISSPROT | LYSOSOMAL ALPHA-MANNOSIDASE PRECURSOR (MANNOSIDASE, ALPHA B) (LYSOSOMAL ACID ALPHA-MANNOSIDASE) (LAMAN) |
| 9952 | 22991 | 36584 | 1.21 | 1.3E+00 | AI927629.1 | EST_HUMAN | wo85a07.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2462100 3' |
| 10031 | 23069 | 36668 | 0.68 | 1.3E+00 | AJ223962.1 | NT | Lactococcus lactis cremoris NCDO-inv1 chromosomal inversion junction DNA |
| 10031 | 23069 | 36669 | 0.68 | 1.3E+00 | AJ223962.1 | NT | Lactococcus lactis cremoris NCDO-inv1 chromosomal inversion junction DNA |
| 10070 | 23108 | 36711 | 3.93 | 1.3E+00 | BE963379.2 | EST_HUMAN | 601657145R1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3866195 3' |
| 10130 | 23168 |  | 0.57 | 1.3E+00 | AI559944.1 | EST_HUMAN | tq77a12.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2214814 3' similar to gb:X14723 CLUSTERIN PRECURSOR (HUMAN); |
| 10353 | 23388 | 36996 | 0.5 | 1.3E+00 | AF061251.1 | NT | Eschericia coli serotype O157:H7 O antigen gene cluster |
| 10353 | 23388 | 36997 | 0.5 | 1.3E+00 | AF061251.1 | NT | Eschericia coli serotype O157:H7 O antigen gene cluster |
| 10418 | 23453 | 37059 | 1.68 | 1.3E+00 | AE004392.1 | NT | Vibrio cholerae chromosome II, section 49 of 93 of the complete chromosome |
| 10435 | 23470 | 37076 | 1.59 | 1.3E+00 | M29953.1 | NT | Campylobacter jejuni kanamycin phosphotransferase (aphA-7) gene, complete cds |
| 10811 | 23844 |  | 0.99 | 1.3E+00 | AL163302.2 | NT | Homo sapiens chromosome 21 segment HS21C102 |
| 10838 | 23871 | 37493 | 0.47 | 1.3E+00 | AI990846.1 | EST_HUMAN | ws32e10.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2498922 3' similar to SW:TRXB_HUMAN Q16881 THIOREDOXIN REDUCTASE ; |
| 10851 | 23884 |  | 0.53 | 1.3E+00 | 8923637 | NT | Homo sapiens hypothetical protein FLJ20707 (FLJ20707), mRNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10854 | 23887 | 37506 | 0.46 | 1.3E+00 | 7949159 | NT | Mus musculus vesicle-associated membrane protein 4 (Vamp4), mRNA |
| 10854 | 23887 | 37507 | 0.46 | 1.3E+00 | 7949159 | NT | Mus musculus vesicle-associated membrane protein 4 (Vamp4), mRNA |
| 10861 | 23894 | 37515 | 0.45 | 1.3E+00 | H42881.1 | EST_HUMAN | yo68c03.s1 Soares breast 3NbHBst Homo sapiens cDNA clone IMAGE:183076 3' |
| 10861 | 23894 | 37516 | 0.45 | 1.3E+00 | H42881.1 | EST_HUMAN | yo68c03.s1 Soares breast 3NbHBst Homo sapiens cDNA clone IMAGE:183076 3' |
| 10932 | 24014 | | 4.05 | 1.3E+00 | Q14117 | SWISSPROT | DIHYDROPYRIMIDINASE (DHPASE) (HYDANTOINASE) (DHP) |
| 11145 | 24217 | 37844 | 2.4 | 1.3E+00 | P25299 | SWISSPROT | MRNA 3'-END PROCESSING PROTEIN RNA15 |
| 11169 | 24240 | 37872 | 1.77 | 1.3E+00 | Z18892.2 | NT | Mus musculus desmin gene |
| 11619 | 24670 | | 1.43 | 1.3E+00 | AW274791.1 | EST_HUMAN | xp09e03.x1 NCI_CGAP_HN9 Homo sapiens cDNA clone IMAGE:2739868 3' |
| 11831 | 24820 | 38511 | 2.73 | 1.3E+00 | D42042.1 | NT | Human mRNA for KIAA0085 gene, partial cds |
| 11923 | 24909 | 38610 | 2.28 | 1.3E+00 | Z98682.1 | NT | Bacillus subtilis genomic DNA 23.9kB fragment |
| 11994 | 24979 | | 1.35 | 1.3E+00 | L31891.1 | NT | Arabidopsis thaliana 3-ketoacyl-acyl carrier protein synthase III (KAS III) mRNA, complete cds |
| 12504 | 25347 | | 3.81 | 1.3E+00 | AF187873.1 | NT | Cavia porcellus inwardly-rectifying potassium channel Kir2.2 (KCNJ12) gene, complete cds |
| 12698 | 25465 | 32022 | 2.76 | 1.3E+00 | BF348043.1 | EST_HUMAN | 602023185F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4158452 5' |
| 12707 | 25899 | | 1.98 | 1.3E+00 | P33464 | SWISSPROT | E1 GLYCOPROTEIN PRECURSOR (MATRIX GLYCOPROTEIN) (MEMBRANE GLYCOPROTEIN) |
| 12822 | 25549 | | 1.53 | 1.3E+00 | AF187035.1 | NT | Sturnira lilium cytochrome b gene, complete cds; mitochondrial gene for mitochondrial product |
| 13200 | 25783 | | 1.34 | 1.3E+00 | U38978.1 | NT | Naphthalenesulfonate-degrading bacterium BN6 2,3-dihydroxybiphenyl dioxygenase (bphCII) gene, complete cds |
| 13231 | 25981 | | 1.63 | 1.3E+00 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 667 | 13853 | 26881 | 8.73 | 1.2E+00 | AA676246.1 | EST_HUMAN | zi22d08.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:431535 3' |
| 846 | 14024 | 27082 | 1.52 | 1.2E+00 | P05228 | SWISSPROT | HISTIDINE-RICH PROTEIN PRECURSOR (CLONE PFHRP-III) |
| 846 | 14024 | 27083 | 1.52 | 1.2E+00 | P05228 | SWISSPROT | HISTIDINE-RICH PROTEIN PRECURSOR (CLONE PFHRP-III) |
| 846 | 14024 | 27084 | 1.52 | 1.2E+00 | P05228 | SWISSPROT | HISTIDINE-RICH PROTEIN PRECURSOR (CLONE PFHRP-III) |
| 901 | 14076 | | 1.21 | 1.2E+00 | 8924234 | NT | Homo sapiens hypothetical protein PRO3077 (PRO3077), mRNA |
| 1187 | 14349 | 27407 | 7.6 | 1.2E+00 | AF080245.2 | NT | Elaeis oleifera sesquiterpene synthase mRNA, complete cds |
| 1232 | 14391 | 27453 | 1.71 | 1.2E+00 | AJ252242.1 | NT | pea seed-borne mosaic virus complete genome |
| 1232 | 14391 | 27454 | 1.71 | 1.2E+00 | AJ252242.1 | NT | pea seed-borne mosaic virus complete genome |
| 2066 | 15207 | 28323 | 1.02 | 1.2E+00 | AF140631.1 | NT | Homo sapiens G-protein coupled receptor 14 (GPR14) gene, complete cds |
| 3179 | 16354 | 29359 | 1.06 | 1.2E+00 | AB020681.1 | NT | Homo sapiens mRNA for KIAA0874 protein, partial cds |
| 3234 | 16408 | 29421 | 7.01 | 1.2E+00 | AL161563.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 63 |
| 3234 | 16408 | 29422 | 7.01 | 1.2E+00 | AL161563.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 63 |
| 3358 | 16530 | | 3.57 | 1.2E+00 | P54910 | SWISSPROT | CONJUGAL TRANSFER PROTEIN TRBE PRECURSOR |
| 3437 | 16605 | 29625 | 0.61 | 1.2E+00 | AF188740.1 | NT | Homo sapiens LHX3 gene, intron 2 |
| 3804 | 16964 | 29967 | 9.16 | 1.2E+00 | U75902.1 | NT | Mus musculus subtilisin-like serine protease LPC (PC7) gene, exons 1 to 9, partial cds |
| 4094 | 17249 | 30254 | 1.87 | 1.2E+00 | BF373670.1 | EST_HUMAN | MR0-FT0175-050900-203-g06_1 FT0175 Homo sapiens cDNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4413 | 16605 | 29625 | 1.06 | 1.2E+00 | AF188740.1 | NT | Homo sapiens LHX3 gene, intron 2 |
| 4594 | 17731 | | 1.91 | 1.2E+00 | M87060.1 | NT | Rattus rattus cardiac AE3 gene, exons 1-23 |
| 4645 | 17781 | 30763 | 0.94 | 1.2E+00 | AL161509.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 21 |
| 4682 | 17817 | 30805 | 2.03 | 1.2E+00 | AF156495.1 | NT | Homo sapiens post-synaptic density 95 (DLG4) gene, complete cds |
| 4712 | 17847 | | 6.6 | 1.2E+00 | Y09200.1 | NT | T.pinnatum chloroplast rbcL gene, partial |
| 5554 | 18751 | 31788 | 1.13 | 1.2E+00 | U20760.1 | NT | Human extracellular calcium-sensing receptor mRNA, complete cds |
| 5672 | 18866 | 32152 | 2.34 | 1.2E+00 | AW813276.1 | EST_HUMAN | MR3-ST0191-140200-013-c05 ST0191 Homo sapiens cDNA |
| 5917 | 19105 | | 0.65 | 1.2E+00 | X81879.1 | NT | Calicivirus cDNA for orf1, orf2 and orf3 |
| 5995 | 19180 | 32502 | 0.77 | 1.2E+00 | AF016052.1 | NT | Homo sapiens zinc finger protein ZNF191 (ZNF191) gene, complete cds |
| 6280 | 19454 | 32802 | 2.45 | 1.2E+00 | X74885.1 | NT | D.hydei ay1 repeat cluster DNA, fragment D |
| 6342 | 19512 | 32869 | 3.81 | 1.2E+00 | BE003113.1 | EST_HUMAN | QV4-BN0090-270400-190-a03 BN0090 Homo sapiens cDNA |
| 6420 | 19589 | 32953 | 1.28 | 1.2E+00 | X89084.1 | NT | C.glutamicum pta gene and ackA gene |
| 6420 | 19589 | 32954 | 1.28 | 1.2E+00 | X89084.1 | NT | C.glutamicum pta gene and ackA gene |
| 6463 | 19630 | 32991 | 36.06 | 1.2E+00 | AA759254.1 | EST_HUMAN | ah84g12.s1 Soares_testis_NHT Homo sapiens cDNA clone 1322374 3' |
| 6566 | 19728 | 33105 | 0.73 | 1.2E+00 | N33295.1 | EST_HUMAN | yy39b12.s1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:273599 3' similar to gb\|M87935\|HUMAALU472 Human carcinoma cell-derived Alu RNA transcript, (rRNA); gb:J04970 CARBOXYPEPTIDASE M PRECURSOR (HUMAN); |
| 6630 | 19790 | 33178 | 0.62 | 1.2E+00 | P17671 | SWISSPROT | ECDYSONE-INDUCIBLE PROTEIN E75-A |
| 6634 | 19793 | 33182 | 1.94 | 1.2E+00 | AW813276.1 | EST_HUMAN | MR3-ST0191-140200-013-c05 ST0191 Homo sapiens cDNA |
| 7055 | 20108 | 33524 | 1.72 | 1.2E+00 | AB029010.1 | NT | Homo sapiens mRNA for KIAA1087 protein, partial cds |
| 7067 | 20120 | 33534 | 2.81 | 1.2E+00 | AJ002141.1 | NT | Mus musculus DSPP gene |
| 7180 | 20312 | 33755 | 0.68 | 1.2E+00 | AA167810.1 | EST_HUMAN | zq38f05.r1 Stratagene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:632001 5' similar to gb:D10522 Human mRNA for 80K-L protein, complete cds. (HUMAN); |
| 7403 | 20481 | | 0.71 | 1.2E+00 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 7542 | 25847 | 34092 | 1.85 | 1.2E+00 | AV734585.1 | EST_HUMAN | AV734585 cdA Homo sapiens cDNA clone cdAAFH03 5' |
| 7828 | 20883 | 34385 | 2.91 | 1.2E+00 | X74207.1 | NT | L.lactis pyrD and pyrF genes |
| 7997 | 21047 | 34560 | 0.6 | 1.2E+00 | BE787646.1 | EST_HUMAN | 601481761F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3884270 5' |
| 8767 | 21846 | 35387 | 3.19 | 1.2E+00 | AB033030.1 | NT | Homo sapiens mRNA for KIAA1204 protein, partial cds |
| 8863 | 21942 | 35477 | 0.82 | 1.2E+00 | P38427 | SWISSPROT | ALPHA,ALPHA-TREHALOSE-PHOSPHATE SYNTHASE [UDP-FORMING] 123 KD SUBUNIT (TREHALOSE-6-PHOSPHATE SYNTHASE) (UDP-GLUCOSE-GLUCOSEPHOSPHATE GLUCOSYLTRANSFERASE) |
| 9077 | 22166 | | 0.7 | 1.2E+00 | 7706271 | NT | Homo sapiens CGI-30 protein (LOC51611), mRNA |
| 9226 | 22304 | 35847 | 1.81 | 1.2E+00 | AW377210.1 | EST_HUMAN | MR2-CT0222-201099-001-e07 CT0222 Homo sapiens cDNA |
| 9440 | 22614 | 36078 | 0.51 | 1.2E+00 | H48599.1 | EST_HUMAN | yq80a06.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:202066 5' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9598 | 22653 | 36224 | 3.79 | 1.2E+00 | Z32850.1 | NT | R.communis gene for pyrophosphate-dependent phosphofructokinase beta subunit |
| 9805 | 22845 | 36423 | 2.13 | 1.2E+00 | D11745.1 | EST_HUMAN | HUMHM01A01 Liver HepG2 cell line. Homo sapiens cDNA clone hm01a01 |
| 10135 | 23173 | 36771 | 3.6 | 1.2E+00 | X56832.1 | NT | H.sapiens ENO3 gene for muscle specific enolase |
| 10532 | 23567 | | 0.82 | 1.2E+00 | AB009666.1 | NT | Homo sapiens klotho gene, exon 1 |
| 11432 | 24493 | 38158 | 1.69 | 1.2E+00 | M38686.1 | NT | Mus musculus Id gene, exon 1 |
| 11627 | 24707 | 38400 | 1.51 | 1.2E+00 | AW817817.1 | EST_HUMAN | PM0-ST0264-161199-001-d01 ST0264 Homo sapiens cDNA |
| 11666 | 24743 | | 7.69 | 1.2E+00 | BE160761.1 | EST_HUMAN | PM1-HT0422-160200-007-g10 HT0422 Homo sapiens cDNA |
| 11744 | 23930 | 37556 | 3.13 | 1.2E+00 | U50147.1 | NT | Rattus norvegicus synapse-associated protein 102 mRNA, complete cds |
| 12101 | 25081 | 38788 | 1.68 | 1.2E+00 | M10408.1 | NT | Maize mitochondrial F-0-ATPase proteolipid (subunit 9) gene |
| 12471 | 25984 | 31768 | 17.76 | 1.2E+00 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 12491 | 25339 | | 1.74 | 1.2E+00 | AP001515.1 | NT | Bacillus halodurans genomic DNA, section 9/14 |
| 13218 | 25793 | | 2.66 | 1.2E+00 | AA077909.1 | EST_HUMAN | 7H11A06 Chromosome 7 HeLa cDNA Library Homo sapiens cDNA clone 7H11A06 |
| 476 | 13671 | 26703 | 1.11 | 1.1E+00 | D86980.1 | NT | Human mRNA for KIAA0227 gene, partial cds |
| 1802 | 14951 | 28045 | 1.23 | 1.1E+00 | AW995393.1 | EST_HUMAN | QV0-BN0042-170300-163-g12 BN0042 Homo sapiens cDNA |
| 1948 | 15091 | 28192 | 1.21 | 1.1E+00 | AW575889.1 | EST_HUMAN | UI-HF-BR0p-ajk-f-02-0-UI.s1 NIH_MGC_52 Homo sapiens cDNA clone IMAGE:3074834 3' |
| 2017 | 15157 | | 2.74 | 1.1E+00 | AF137273.1 | NT | Gallus gallus alpha 1 (V) collagen mRNA, complete cds |
| 3409 | 16579 | 29594 | 8.86 | 1.1E+00 | AL163213.2 | NT | Homo sapiens chromosome 21 segment HS21C013 |
| 3409 | 16579 | 29595 | 8.86 | 1.1E+00 | AL163213.2 | NT | Homo sapiens chromosome 21 segment HS21C013 |
| 3575 | 16740 | 29757 | 1.02 | 1.1E+00 | 8922641 | NT | Homo sapiens hypothetical protein FLJ10749 (FLJ10749), mRNA |
| 3670 | 16833 | 29844 | 0.99 | 1.1E+00 | AI808360.1 | EST_HUMAN | wf54h11.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2359461 3' similar to SW:P531_HUMAN Q12888 P53-BINDING PROTEIN 53BP1 ; |
| 3812 | 16972 | 29974 | 1.16 | 1.1E+00 | AE003886.1 | NT | Xylella fastidiosa, section 32 of 229 of the complete genome. |
| 3812 | 16972 | 29975 | 1.16 | 1.1E+00 | AE003886.1 | NT | Xylella fastidiosa, section 32 of 229 of the complete genome |
| 3920 | 17079 | | 0.92 | 1.1E+00 | X85374.1 | NT | H.parahaemolyticus hphIM(A), hphIM(C), hphIR and menB genes |
| 4054 | 17210 | 30220 | 1.03 | 1.1E+00 | 8922641 | NT | Homo sapiens hypothetical protein FLJ10749 (FLJ10749), mRNA. |
| 4130 | 17283 | 30278 | 0.72 | 1.1E+00 | 6755205 | NT | Mus musculus proteasome (prosome, macropain) subunit, beta type 7 (Psmb7), mRNA |
| 4331 | 17474 | | 6.82 | 1.1E+00 | 5835331 | NT | R.unicornis complete mitochondrial genome |
| 5107 | 18235 | 31204 | 3.45 | 1.1E+00 | U18466.1 | NT | African swine fever virus, complete genome |
| 5180 | 18302 | 31265 | 2.06 | 1.1E+00 | X78425.1 | NT | E.faecalis pbp5 gene |
| 5422 | 18623 | 31599 | 1.49 | 1.1E+00 | 6978530 | NT | Rattus norvegicus Aquaporin 4 (Aqp4), mRNA |
| 5731 | 18924 | 32218 | 14.33 | 1.1E+00 | BE960184.1 | EST_HUMAN | 601652776R1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3825835 3' |
| 5760 | 18942 | 32243 | 1.32 | 1.1E+00 | AI138582.1 | EST_HUMAN | qd85c03.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1736260 3' |
| 6217 | 19392 | 32740 | 0.9 | 1.1E+00 | 11419739 | NT | Homo sapiens solute carrier family 6 (neurotransmitter transporter), member 14 (SLC6A14), mRNA |

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6404 | 19573 | 32935 | 0.59 | 1.1E+00 | AF197861.1 | NT | Macgregoria pulchra cytochrome b gene, complete cds; mitochondrial gene for mitochondrial product |
| 6537 | 19700 | 33073 | 0.72 | 1.1E+00 | R06037.1 | EST_HUMAN | ye89e03.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:124924 5' |
| 6856 | 20009 | 33419 | 0.78 | 1.1E+00 | AJ404004.1 | NT | Mus musculus mRNA for ER protein 68 (EP58 gene) |
| 7447 | 20524 | 33997 | 0.58 | 1.1E+00 | X55981.1 | NT | Maize mRNA for enolase (2-phospho-D-glycerate hydrolase) |
| 7632 | 20701 | 34179 | 0.67 | 1.1E+00 | BF683714.1 | EST_HUMAN | 602139978F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4301322 5' |
| 7659 | 20726 | 34201 | 2.23 | 1.1E+00 | Z72338.1 | NT | Herpes simplex virus type 1 (strain KOS) UL41 gene |
| 7659 | 20726 | 34202 | 2.23 | 1.1E+00 | Z72338.1 | NT | Herpes simplex virus type 1 (strain KOS) UL41 gene |
| 7680 | 20745 | 34226 | 8.35 | 1.1E+00 | AL161588.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 84 |
| 7754 | 25853 | 34305 | 1.04 | 1.1E+00 | 11967960 | NT | Mus musculus silent mating type information regulation 2, (S.cerevisiae, homolog)-like (Sir2l), mRNA |
| 8326 | 21407 | 34934 | 3.2 | 1.1E+00 | BF693996.1 | EST_HUMAN | 602082582F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4246628 5' |
| 8416 | 21497 | 35029 | 0.91 | 1.1E+00 | AI478339.1 | EST_HUMAN | tm39h11.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2160549 3' |
| 8935 | 22014 | 35554 | 0.86 | 1.1E+00 | AB003088.1 | NT | Acetabularia caliculus mitochondrial COXI-like gene |
| 9015 | 22094 | 35634 | 0.87 | 1.1E+00 | S80750.1 | NT | VH=anti-cytomegalovirus glycoprotein B antibody 4D4 heavy chain variable region [human, mRNA Partial, 375 nt] |
| 9126 | 22205 | 35748 | 0.53 | 1.1E+00 | AI079946.1 | EST_HUMAN | oz34f05.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1677249 3' |
| 9637 | 21080 | | 0.75 | 1.1E+00 | BE384876.1 | EST_HUMAN | 601276278F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3617418 5' |
| 9828 | 22868 | 36450 | 0.51 | 1.1E+00 | AJ245772.1 | NT | Mus musculus mRNA for stretch responsive muscle (X-chromosome) protein (Srmx gene) |
| 9883 | 22923 | | 0.81 | 1.1E+00 | Y12227.1 | NT | Arabidopsis thaliana DNA, 24 kb surrounding PFL locus |
| 9974 | 23013 | 36607 | 1.03 | 1.1E+00 | L76301.1 | NT | Yersinia pseudotuberculosis psaE, psaF, adhesin (psaA), chaperone (psaB), and usher (psaC) genes, complete cds |
| 10038 | 23076 | 36676 | 1.85 | 1.1E+00 | AB023151.1 | NT | Homo sapiens mRNA for KIAA0934 protein, partial cds |
| 10141 | 23179 | 36777 | 4.09 | 1.1E+00 | AL161515.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 27 |
| 10202 | 23239 | 36829 | 20.74 | 1.1E+00 | 6754021 | NT | Mus musculus guanine nucleotide binding protein (G protein), gamma 3 subunit (Gng3), mRNA |
| 10719 | 23752 | 37358 | 1.21 | 1.1E+00 | P73769 | SWISSPROT | DNA MISMATCH REPAIR PROTEIN MUTS |
| 10831 | 23864 | 37486 | 0.56 | 1.1E+00 | AI878921.1 | EST_HUMAN | au51c11.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2518292 5' similar to gb:D10522 Human mRNA for 80K-L protein, complete cds. (HUMAN); |
| 10886 | 23970 | 37600 | 1.97 | 1.1E+00 | 11067364 | NT | Homo sapiens KIAA0626 gene product (KIAA0626), mRNA |
| 10947 | 24029 | | 3.14 | 1.1E+00 | AF068942.1 | NT | Klebsormidium fluitans cytochrome c oxidase subunit 2 (cox2) gene, mitochondrial gene encoding mitochondrial protein, partial cds |
| 11343 | 24406 | 38055 | 3.72 | 1.1E+00 | L16877.1 | NT | Homo sapiens cytochrome P4502C9 (CYP2C9) gene, 5' flank and exon 1 |
| 11361 | 18489 | | 2.74 | 1.1E+00 | 8922973 | NT | Homo sapiens hypothetical protein FLJ11280 (FLJ11280), mRNA |

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11366 | 24427 | 38083 | 2.93 | 1.1E+00 | AF012862.1 | NT | Petroselinum crispum cytosolic glucose-6-phosphate dehydrogenase 1 (cG6PDH1) mRNA, complete cds |
| 11366 | 24427 | 38084 | 2.93 | 1.1E+00 | AF012862.1 | NT | Petroselinum crispum cytosolic glucose-6-phosphate dehydrogenase 1 (cG6PDH1) mRNA, complete cds |
| 11637 | 24717 | 38409 | 3.99 | 1.1E+00 | AI809699.1 | EST_HUMAN | wf76e11.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2361548 3' |
| 11870 | 24858 | 38552 | 1.38 | 1.1E+00 | D89501.1 | NT | Human PBI gene, complete cds |
| 11870 | 24858 | 38553 | 1.38 | 1.1E+00 | D89501.1 | NT | Human PBI gene, complete cds |
| 12441 | 25312 |  | 1.82 | 1.1E+00 | P07866 | SWISSPROT | LOW TEMPERATURE ESSENTIAL PROTEIN |
| 12547 | 25371 | 32070 | 3.56 | 1.1E+00 | AF216696.1 | NT | Taenia solium immunogenic protein Ts76 mRNA, partial cds |
| 12689 | 25980 |  | 1.86 | 1.1E+00 | AF234169.1 | NT | Dictyostelium discoideum isopentenyl pyrophosphate isomerase (Dipl) mRNA, complete cds |
| 101 | 13337 |  | 1.84 | 1.0E+00 | U23808.1 | NT | Xenopus laevis rhodopsin gene, complete cds |
| 116 | 13347 | 26374 | 2.1 | 1.0E+00 | D88425.1 | NT | Cavia cobaya mRNA for serine/threoine kinase, complete cds |
| 431 | 13626 |  | -2.78 | 1.0E+00 | AB021684.1 | NT | Marchantia polymorpha genes for 26S rRNA, 5S rRNA, 18S rRNA, 5.8S rRNA and 26S rRNA |
| 590 | 13781 | 26800 | 1.44 | 1.0E+00 | AJ251660.1 | NT | Girardia tigrina mRNA for homeodomain transcription factor (so gene) |
| 694 | 13877 | 26910 | 7.14 | 1.0E+00 | AL163218.2 | NT | Homo sapiens chromosome 21 segment HS21C018 |
| 696 | 13879 |  | 2.29 | 1.0E+00 | AF125984.1 | NT | Aedes aegypti mucin-like protein MUC1 mRNA, complete cds |
| 1417 | 16037 |  | 1.35 | 1.0E+00 | X80416.1 | NT | V.carteri Algal-CAM mRNA |
| 1795 | 14944 | 28037 | 1.33 | 1.0E+00 | AB006531.1 | NT | Plautia stali intestine virus RNA for nonstructural polyprotein, capsid protein precursor, complete cds |
| 2554 | 15679 | 28803 | 1.11 | 1.0E+00 | P48355 | SWISSPROT | DNA GYRASE SUBUNIT B |
| 2554 | 15679 | 28804 | 1.11 | 1.0E+00 | P48355 | SWISSPROT | DNA GYRASE SUBUNIT B |
| 2621 | 15744 |  | 0.95 | 1.0E+00 | AA628453.1 | EST_HUMAN | af26g08.s1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1032830 3' similar to WP:C42D8.3 CE04204 ;contains element MER22 MER22 repetitive element ; |
| 2940 | 16117 | 29129 | 4.51 | 1.0E+00 | P24008 | SWISSPROT | 3-OXO-5-ALPHA-STEROID 4-DEHYDROGENASE 1 (STEROID 5-ALPHA-REDUCTASE 1) (SR TYPE 1) |
| 2940 | 16117 | 29130 | 4.51 | 1.0E+00 | P24008 | SWISSPROT | 3-OXO-5-ALPHA-STEROID 4-DEHYDROGENASE 1 (STEROID 5-ALPHA-REDUCTASE 1) (SR TYPE 1) |
| 3032 | 16208 |  | 0.95 | 1.0E+00 | O14226 | SWISSPROT | HYPOTHETICAL 67.9 KD PROTEIN C6F12.08C IN CHROMOSOME I |
| 3269 | 16443 | 29463 | 1.16 | 1.0E+00 | AA628453.1 | EST_HUMAN | af26g08.s1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1032830 3' similar to WP:C42D8.3 CE04204 ;contains element MER22 MER22 repetitive element ; |
| 3459 | 16626 |  | 0.73 | 1.0E+00 | AF222761.1 | NT | Rattus norvegicus neuromedin U precursor (NmU) gene, exons 5 and 6 |
| 3688 | 13337 |  | 0.75 | 1.0E+00 | U23808.1 | NT | Xenopus laevis rhodopsin gene, complete cds |
| 3772 | 16933 | 29939 | 1.61 | 1.0E+00 | AJ223816.1 | NT | Agaricus bisporus mRNA for tyrosinase |

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4180 | 17330 | 30322 | 1.12 | 1.0E+00 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 4390 | 17533 | | 0.72 | 1.0E+00 | 8922245 | NT | Homo sapiens hypothetical protein FLJ10139 (FLJ10139), mRNA |
| 5396 | 18598 | 31568 | 2.3 | 1.0E+00 | Z97022.1 | NT | Hordeum vulgare gene encoding cysteine proteinase |
| 5971 | 19157 | 32472 | 4.38 | 1.0E+00 | AF248054.1 | NT | Bos taurus micromolar calcium activated neutral protease 1 (CAPN1) gene, exons 11-20, and partial cds |
| 5971 | 19157 | 32473 | 4.38 | 1.0E+00 | AF248054.1 | NT | Bos taurus micromolar calcium activated neutral protease 1 (CAPN1) gene, exons 11-20, and partial cds |
| 6077 | 19259 | 32588 | 1.74 | 1.0E+00 | Z97341.2 | NT | Arabidopsis thaliana DNA chromosome 4, ESSA I FCA contig fragment No. 6 |
| 6241 | 19415 | 32763 | 4.85 | 1.0E+00 | P04501 | SWISSPROT | FIBER PROTEIN |
| 6248 | 19422 | 32768 | 1.67 | 1.0E+00 | AW452782.1 | EST_HUMAN | UI-H-BI3-alx-d-09-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:3068969 3' |
| 6618 | 19778 | 33167 | 2.04 | 1.0E+00 | U75902.1 | NT | Mus musculus subtilisin-like serine protease LPC (PC7) gene, exons 1 to 9, partial cds |
| 6671 | 19830 | 33210 | 0.83 | 1.0E+00 | AF104669.1 | NT | Homo sapiens cell cycle protein (PA2G4) gene, exons 2 though 5 |
| 6767 | 19923 | | 1.07 | 1.0E+00 | P46506 | SWISSPROT | SRB-11 PROTEIN |
| 6795 | 19950 | 33349 | 0.82 | 1.0E+00 | BE797716.1 | EST_HUMAN | 601581891F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3936382 5' |
| 6795 | 19950 | 33350 | 0.82 | 1.0E+00 | BE797716.1 | EST_HUMAN | 601581891F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3936382 5' |
| 6916 | 20231 | 33664 | 1.27 | 1.0E+00 | Y11204.1 | NT | V.carteri gene encoding volvoxopsin |
| 7288 | 20371 | 33826 | 1.15 | 1.0E+00 | S52770.1 | NT | Insulin-like growth factor-binding protein 4 [cattle, pulmonary artery endothelial cells, mRNA, 2028 nt] |
| 7647 | 20716 | | 9.68 | 1.0E+00 | P20273 | SWISSPROT | B-CELL RECEPTOR CD22 PRECURSOR (LEU-14) (B-LYMPHOCYTE CELL ADHESION MOLECULE) (BL-CAM) |
| 7889 | 20941 | 34447 | 1.51 | 1.0E+00 | AF192531.1 | NT | Homo sapiens endothelin-converting enzyme 2 (ECE2) mRNA, complete cds |
| 7903 | 20955 | 34462 | 6.02 | 1.0E+00 | AA775191.1 | EST_HUMAN | ac79b08.s1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:868791 3' |
| 8019 | 21070 | | 0.72 | 1.0E+00 | BF679213.1 | EST_HUMAN | 602153792F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4294727 5' |
| 8148 | 21230 | 34749 | 1.65 | 1.0E+00 | BE868267.1 | EST_HUMAN | 601443950F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3848005 5' |
| 8148 | 21230 | 34750 | 1.65 | 1.0E+00 | BE868267.1 | EST_HUMAN | 601443950F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3848005 5' |
| 8335 | 18496 | | 1.48 | 1.0E+00 | D10852.1 | NT | Rattus norvegicus mRNA for N-acetylglucosaminyltransferase III, complete cds |
| 8545 | 21626 | 35163 | 2.59 | 1.0E+00 | Q02207 | SWISSPROT | PEROXISOMAL HYDRATASE-DEHYDROGENASE-EPIMERASE (HDE) (MULTIFUNCTIONAL BETA-OXIDATION PROTEIN) (MFP) [INCLUDES: 2-ENOYL-COA HYDRATASE ; D-3-HYDROXYACYL COA DEHYDROGENASE ] |
| 8545 | 21626 | 35164 | 2.59 | 1.0E+00 | Q02207 | SWISSPROT | PEROXISOMAL HYDRATASE-DEHYDROGENASE-EPIMERASE (HDE) (MULTIFUNCTIONAL BETA-OXIDATION PROTEIN) (MFP) [INCLUDES: 2-ENOYL-COA HYDRATASE ; D-3-HYDROXYACYL COA DEHYDROGENASE ] |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8672 | 21752 | | 1.07 | 1.0E+00 | P51784 | SWISSPROT | UBIQUITIN CARBOXYL-TERMINAL HYDROLASE 11 (UBIQUITIN THIOLESTERASE 11) (UBIQUITIN-SPECIFIC PROCESSING PROTEASE 11) (DEUBIQUITINATING ENZYME 11) |
| 8708 | 21788 | 35321 | 0.54 | 1.0E+00 | Q9Y5T5 | SWISSPROT | UBIQUITIN CARBOXYL-TERMINAL HYDROLASE 16 (UBIQUITIN THIOLESTERASE 16) (UBIQUITIN-SPECIFIC PROCESSING PROTEASE 16) (DEUBIQUITINATING ENZYME 16) (UBIQUITIN PROCESSING PROTEASE UBP-M) |
| 8708 | 21788 | 35322 | 0.54 | 1.0E+00 | Q9Y5T5 | SWISSPROT | UBIQUITIN CARBOXYL-TERMINAL HYDROLASE 16 (UBIQUITIN THIOLESTERASE 16) (UBIQUITIN-SPECIFIC PROCESSING PROTEASE 16) (DEUBIQUITINATING ENZYME 16) (UBIQUITIN PROCESSING PROTEASE UBP-M) |
| 8735 | 25858 | | 1.82 | 1.0E+00 | BE147331.1 | EST_HUMAN | RC1-HT0229-181099-011-e06 HT0229 Homo sapiens cDNA |
| 8776 | 21855 | 35397 | 1.15 | 1.0E+00 | U42720.2 | NT | Simian immunodeficiency virus Gag protein (gag) gene, complete cds; Pol protein (pol) gene, partial cds; and Vif protein (vif), Vpr protein (vpr), Tat protein (tat), Rev protein (rev), Vpu protein (vpu), Env protein (env), and Nef protein (nef) genes, > |
| 8922 | 22001 | 35640 | 1.8 | 1.0E+00 | M38427.1 | NT | Human immunodeficiency virus type 1 (HIV-1), isolate SF33, |
| 9471 | 22528 | 36091 | 1.95 | 1.0E+00 | BE907592.1 | EST_HUMAN | 601497581F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3899421 5' |
| 9682 | 22731 | 36301 | 1.62 | 1.0E+00 | 6753429 | NT | Mus musculus chloride channel calcium activated 1 (Clca1), mRNA |
| 9682 | 22731 | 36302 | 1.62 | 1.0E+00 | 6753429 | NT | Mus musculus chloride channel calcium activated 1 (Clca1), mRNA |
| 9810 | 22850 | 36429 | 1.81 | 1.0E+00 | AV689554.1 | EST_HUMAN | AV689554 GKC Homo sapiens cDNA clone GKCCYA11 5' |
| 9815 | 22855 | 36434 | 1.32 | 1.0E+00 | U44952.1 | NT | Xenopus laevis zona pellucida C glycoprotein precursor (xlZPC) mRNA, complete cds |
| 9815 | 22855 | 36435 | 1.32 | 1.0E+00 | U44952.1 | NT | Xenopus laevis zona pellucida C glycoprotein precursor (xlZPC) mRNA, complete cds |
| 10318 | 23353 | 36961 | 0.82 | 1.0E+00 | 5174562 | NT | Homo sapiens MHC binding factor, beta (MHCBFB) mRNA |
| 10318 | 23353 | 36962 | 0.82 | 1.0E+00 | 5174562 | NT | Homo sapiens MHC binding factor, beta (MHCBFB) mRNA |
| 10408 | 23443 | 37050 | 0.69 | 1.0E+00 | AI077920.1 | EST_HUMAN | oy15d07.s1 Soares_senescent_fibroblasts_NbHSF Homo sapiens cDNA clone IMAGE:1665901 3' |
| 10533 | 23568 | 37175 | 3.99 | 1.0E+00 | AV758825.1 | EST_HUMAN | AV758825 BM Homo sapiens cDNA clone BMFAWC04 5' |
| 10694 | 23727 | 37333 | 19.71 | 1.0E+00 | AA004982.1 | EST_HUMAN | zh94a02.r1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:428906 5' |
| 10694 | 23727 | 37334 | 19.71 | 1.0E+00 | AA004982.1 | EST_HUMAN | zh94a02.r1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:428906 5' |
| 10728 | 23761 | 37368 | 1.22 | 1.0E+00 | L11910.1 | NT | Human retinoblastoma susceptibility gene exons 1-27, complete cds |
| 11216 | 24285 | 37924 | 1.37 | 1.0E+00 | S90825.1 | NT | PBR1=proline-rich protein {intron 3} [human, Genomic, 898 nt] |
| 11342 | 24405 | 38064 | 1.46 | 1.0E+00 | AA701494.1 | EST_HUMAN | zi63b11.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:435453 3' similar to contains Alu repetitive element;contains element MER38 repetitive element ; |
| 11825 | 24814 | | 1.62 | 1.0E+00 | L47613.1 | NT | Picea glauca EMB13 mRNA |
| 12329 | 25238 | | 5.49 | 1.0E+00 | P15306 | SWISSPROT | THROMBOMODULIN PRECURSOR (FETOMODULIN) (TM) |
| 12676 | 25451 | | 2.67 | 1.0E+00 | AW976184.1 | EST_HUMAN | EST388293 MAGE resequences, MAGN Homo sapiens cDNA |
| 3693 | 16855 | | 1.04 | 9.9E-01 | AF174585.1 | NT | Apple mosaic virus RNA 2 putative polymerase gene, complete cds |
| 5752 | 18944 | 32246 | 8.8 | 9.9E-01 | P49657 | SWISSPROT | SERINE/THREONINE PROTEIN KINASE MINIBRAIN |

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5990 | 19176 | 32498 | 0.83 | 9.9E-01 | Q09632 | SWISSPROT | PROBABLE OXIDOREDUCTASE ZK1290.5 IN CHROMOSOME II |
| 9461 | 22518 | | 1.68 | 9.9E-01 | U65667.1 | NT | Lycopersicon esculentum putative Mi1 copy 1 nematode-resistance gene |
| 9755 | 22693 | | 2.14 | 9.9E-01 | Q28642 | SWISSPROT | B2 BRADYKININ RECEPTOR (BK-2 RECEPTOR) |
| 536 | 13729 | 26753 | 1.17 | 9.8E-01 | P22567 | SWISSPROT | AMINO-ACID ACETYLTRANSFERASE (N-ACETYLGLUTAMATE SYNTHASE) (AGS) (NAGS) |
| 2370 | 15501 | | 1.26 | 9.8E-01 | AJ003108.1 | NT | Callithrix jacchus UBE1 gene derived retroposon on the Y chromosome |
| 2862 | 15976 | | 1.29 | 9.8E-01 | AF174644.1 | NT | Xenopus laevis rac GTPase mRNA, complete cds |
| 3903 | 17062 | 30061 | 0.67 | 9.8E-01 | BE957439.2 | EST_HUMAN | 601653583R2 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:3838461 3' |
| 3903 | 17062 | 30062 | 0.67 | 9.8E-01 | BE957439.2 | EST_HUMAN | 601653583R2 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:3838461 3' |
| 7349 | 20429 | 33890 | 4.42 | 9.8E-01 | AJ302158.1 | NT | Enterobacteriaceae sp. JM983 partial groES gene for GroES-like protein and partial groEL gene for GroEL-like protein, isolate JM983 |
| 7349 | 20429 | 33891 | 4.42 | 9.8E-01 | AJ302158.1 | NT | Enterobacteriaceae sp. JM983 partial groES gene for GroES-like protein and partial groEL gene for GroEL-like protein, isolate JM983 |
| 7823 | 20878 | 34378 | 1.14 | 9.8E-01 | BF034016.1 | EST_HUMAN | 601456337F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3860049 5' |
| 7823 | 20878 | 34379 | 1.14 | 9.8E-01 | BF034016.1 | EST_HUMAN | 601456337F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3860049 5' |
| 8916 | 21995 | 35534 | 0.94 | 9.8E-01 | P38652 | SWISSPROT | PHOSPHOGLUCOMUTASE (GLUCOSE PHOSPHOMUTASE) (PGM) |
| 10653 | 23687 | | 1.02 | 9.8E-01 | AA825565.1 | EST_HUMAN | od55d04.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1371847 3' |
| 11242 | 24311 | 37948 | 1.84 | 9.8E-01 | BE258705.1 | EST_HUMAN | 601110258F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350750 5' |
| 11242 | 24311 | 37949 | 1.84 | 9.8E-01 | BE258705.1 | EST_HUMAN | 601110258F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350750 5' |
| 12554 | 25377 | | 2.43 | 9.8E-01 | U52111.2 | NT | Homo sapiens X28 region near ALD locus containing dual specificity phosphatase 9 (DUSP9), ribosomal protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMKI), creatine transporter (CRTR), CDM protein (CDM), adrenoleukodystrophy protein > |
| 7309 | 20391 | 33851 | 2.73 | 9.7E-01 | U26716.1 | NT | Drosophila melanogaster sodium channel protein (para) gene, exons 9,10,11,12 and optional segments b, c, d and e, partial cds |
| 8701 | 21781 | 35314 | 1.9 | 9.7E-01 | AF149112.1 | NT | Triticum aestivum stripe rust resistance protein Yr10 (Yr10) gene, complete cds |
| 8707 | 21787 | 35320 | 1.54 | 9.7E-01 | M90544.1 | NT | Salmonella typhimurium adenine-methyltransferase (mod) and restriction endonuclease (res) |
| 9039 | 22118 | 35661 | 0.73 | 9.7E-01 | BE799822.1 | EST_HUMAN | 601592165F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3945904 5' |
| 11444 | 24505 | | 3.56 | 9.7E-01 | BF511209.1 | EST_HUMAN | UI-H-BI4-aoi-e-07-0-UI.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3085140 3' |
| 13208 | 25789 | | 3.17 | 9.7E-01 | AL114281.1 | NT | Botrytis cinerea strain T4 cDNA library under conditions of nitrogen deprivation |
| 4558 | 17696 | 30675 | 0.74 | 9.6E-01 | AF197925.1 | NT | Bromus inermis putative cytosolic phosphoglucomutase (pgm1) mRNA, complete cds |
| 4558 | 17696 | 30676 | 0.74 | 9.6E-01 | AF197925.1 | NT | Bromus inermis putative cytosolic phosphoglucomutase (pgm1) mRNA, complete cds |
| 4580 | 17717 | 30700 | 1.28 | 9.6E-01 | AW799674.1 | EST_HUMAN | PM2-UM0053-240300-005-f12 UM0053 Homo sapiens cDNA |
| 5872 | 19062 | 32369 | 3.51 | 9.6E-01 | Z70556.1 | NT | Parvovirus B19 DNA, patient C, genome position 2448-2994 |
| 5872 | 19062 | 32370 | 3.51 | 9.6E-01 | Z70556.1 | NT | Parvovirus B19 DNA, patient C, genome position 2448-2994 |
| 6886 | 20038 | 33447 | 0.6 | 9.6E-01 | Z97341.2 | NT | Arabidopsis thaliana DNA chromosome 4, ESSA I FCA contig fragment No. 6 |

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7612 | 20586 | 34059 | 0.63 | 9.6E-01 | AF197881.1 | NT | Helix lucorum presenilin (PS) mRNA, complete cds |
| 8586 | 21667 | | 1.52 | 9.6E-01 | X95275.1 | NT | P.falciparum complete gene map of plastid-like DNA (IR-A) |
| 9052 | 22131 | 35675 | 0.92 | 9.6E-01 | L81138.1 | NT | Rattus norvegicus (strain R21) Rps2r gene, complete cds |
| 11346 | 24408 | 38060 | 1.42 | 9.6E-01 | AF041427.1 | NT | Homo sapiens ribosomal protein s4 Y isoform gene, complete cds |
| 11808 | 24798 | 38496 | 3.91 | 9.6E-01 | AV752605.1 | EST_HUMAN | AV752605 NPD Homo sapiens cDNA clone NPDBAG06 5' |
| 11808 | 24798 | 38497 | 3.91 | 9.6E-01 | AV752605.1 | EST_HUMAN | AV752605 NPD Homo sapiens cDNA clone NPDBAG06 5' |
| 12225 | 25174 | | 1.31 | 9.6E-01 | 11421722 | NT | Homo sapiens centrosomal protein 2 (CEP2), mRNA |
| 12915 | 26061 | 31656 | 1.68 | 9.6E-01 | U91423.1 | NT | Sphyrna tiburo NADH dehydrogenase subunit 2 (NADH2) gene, mitochondrial gene encoding mitochondrial protein, partial cds |
| 2545 | 15670 | 28794 | 1.61 | 9.5E-01 | 7705591 | NT | Homo sapiens CGI-125 protein (LOC51003), mRNA |
| 3882 | 17041 | 30038 | 2.1 | 9.5E-01 | BE902340.1 | EST_HUMAN | 601675639F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3958473 5' |
| 3882 | 17041 | 30039 | 2.1 | 9.5E-01 | BE902340.1 | EST_HUMAN | 601675639F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3958473 5' |
| 9202 | 22280 | 35819 | 0.71 | 9.5E-01 | AI190162.1 | EST_HUMAN | qd57d07.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1733581 3' |
| 9306 | 22382 | 35933 | 1.04 | 9.5E-01 | AW861102.1 | EST_HUMAN | RC1-CT0295-241199-011-b02 CT0295 Homo sapiens cDNA |
| 11520 | 24576 | 38254 | 1.56 | 9.5E-01 | BF218771.1 | EST_HUMAN | 601885163F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4103630 5' |
| 11737 | 23923 | 37548 | 1.57 | 9.6E-01 | AW293799.1 | EST_HUMAN | UI-H-BI2-ahp-f-03-0-UI.s1 NCI_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2727677 3' |
| 3271 | 16446 | | 5.72 | 9.4E-01 | AF165990.1 | NT | Bartonella clarridgeiae RNA polymerase beta subunit (rpoB) gene, partial cds |
| 3289 | 16463 | | 2.17 | 9.4E-01 | AF080595.1 | NT | Pimpinella brachycarpa zinc finger protein (ZFP1) mRNA, complete cds |
| 9066 | 22145 | 35692 | 0.79 | 9.4E-01 | M90724.1 | NT | Human Fc-gamma-receptorIIA (FCGR2A) gene, exon 4 |
| 12496 | 25343 | | 1.86 | 9.4E-01 | BE781251.1 | EST_HUMAN | 601466703F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3869929 5' |
| 12914 | 25975 | | 1.4 | 9.4E-01 | 11419857 | NT | Homo sapiens epidermal growth factor receptor (avian erythroblastic leukemia viral (v-erb-b) oncogene homolog) (EGFR), mRNA |
| 1769 | 14918 | | 1.24 | 9.3E-01 | AF242382.1 | NT | Homo sapiens phytanoyl-CoA hydroxylase (PHYH) gene, exon 5 |
| 2699 | 15818 | 28934 | 3.62 | 9.3E-01 | BE071172.1 | EST_HUMAN | RC5-BT0503-271199-011-B01 BT0503 Homo sapiens cDNA |
| 4146 | 17298 | 30289 | 0.86 | 9.3E-01 | M20219.1 | NT | Bovine papillomavirus type 2, complete genome |
| 4146 | 17298 | 30290 | 0.86 | 9.3E-01 | M20219.1 | NT | Bovine papillomavirus type 2, complete genome |
| 5709 | 18902 | 32197 | 1.6 | 9.3E-01 | AF213884.1 | NT | Homo sapiens nuclear factor of kappa light polypeptide gene enhancer in B-cells 1 (NFKB1) gene, complete cds |
| 5795 | 18986 | 32289 | 3.48 | 9.3E-01 | L36189.1 | NT | Spodoptera frugiperda methylenetetrahydrofolate dehydrogenase mRNA, complete cds |
| 7486 | 20561 | | 1.08 | 9.3E-01 | AF270648.1 | NT | Plasmodium falciparum mature parasite-infected erythrocyte surface antigen (MESA) gene, complete cds |
| 8257 | 21339 | 34856 | 1.99 | 9.3E-01 | AA847040.1 | EST_HUMAN | oe09b03.s1 NCI_CGAP_Ov2 Homo sapiens cDNA clone IMAGE:1385357 |
| 9013 | 22092 | | 1.1 | 9.3E-01 | AF061981.1 | NT | Xenopus laevis CCCH zinc finger protein C3H-2 (C3H-2) mRNA, complete cds |
| 9137 | 22216 | 35760 | 0.89 | 9.3E-01 | AL161534.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 34 |

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 13039 | 25683 | 31961 | 2.09 | 9.3E-01 | 11440298 | NT | Homo sapiens inositol 1,4,5-triphosphate receptor, type 2 (ITPR2), mRNA |
| 13049 | 25688 | | 1.22 | 9.3E-01 | AF271207.1 | NT | Aedes triseriatus putative large subunit ribosomal protein rpL34 mRNA, complete cds |
| 3311 | 16484 | 29505 | 3.92 | 9.2E-01 | BE622702.1 | EST_HUMAN | 601441338T1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3916184 3' |
| 4999 | 18128 | | 0.61 | 9.2E-01 | BF129973.1 | EST_HUMAN | 601817814F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4041363 5' |
| 5835 | 19025 | | 1.58 | 9.2E-01 | 7105410 | NT | Mus musculus solute carrier family 30 (zinc transporter), member 4 (Slc30a4), mRNA |
| 6109 | 19289 | 32624 | 4.97 | 9.2E-01 | BF037586.1 | EST_HUMAN | 601461153F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3864661 5' |
| 6770 | 19925 | 33320 | 0.65 | 9.2E-01 | M64703.1 | NT | N.crassa valyl-tRNA synthetase (cyt-20/un-3) gene |
| 9860 | 22900 | 36484 | 0.98 | 9.2E-01 | AL161565.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 65 |
| 9949 | 22988 | 36582 | 1.31 | 9.2E-01 | 6671677 | NT | Mus musculus carbonic anhydrase 4 (Car4), mRNA |
| 10472 | 23507 | 37120 | 3.6 | 9.2E-01 | 11430963 | NT | Homo sapiens lysosomal apyrase-like protein 1 (LALP1), mRNA |
| 10627 | 23661 | 37269 | 1.64 | 9.2E-01 | BF593251.1 | EST_HUMAN | 7o58e06.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3578219 3' similar to SW:NU5M_TRYBB P04540 NADH-UBIQUINONE OXIDOREDUCTASE CHAIN 5 ; |
| 10883 | 23967 | 37596 | 1.76 | 9.2E-01 | BE563811.1 | EST_HUMAN | 601334943F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3688714 5' |
| 12022 | 25006 | 38707 | 1.5 | 9.2E-01 | BF132402.1 | EST_HUMAN | 601820312F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4052018 5' |
| 1654 | 14807 | 27892 | 1.52 | 9.1E-01 | T96675.1 | EST_HUMAN | ye52f01.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:121369 3' similar to contains Alu repetitive element; |
| 2193 | 15328 | | 1.49 | 9.1E-01 | 8923056 | NT | Homo sapiens hypothetical protein FLJ20048 (FLJ20048), mRNA |
| 3275 | 16449 | 29468 | 1.28 | 9.1E-01 | T26418.1 | EST_HUMAN | AB200G8R Infant brain, LLNL array of Dr. M. Soares 1NIB Homo sapiens cDNA clone LLAB200G8 5' |
| 3275 | 16449 | 29469 | 1.28 | 9.1E-01 | T26418.1 | EST_HUMAN | AB200G8R Infant brain, LLNL array of Dr. M. Soares 1NIB Homo sapiens cDNA clone LLAB200G8 5' |
| 6296 | 19469 | 32824 | 1.54 | 9.1E-01 | L36033.1 | NT | Human pre-B cell stimulating factor homologue (SDF1b) mRNA, complete cds |
| 6635 | 19794 | 33183 | 3.25 | 9.1E-01 | Q61704 | SWISSPROT | INTER-ALPHA-TRYPSIN INHIBITOR HEAVY CHAIN H3 PRECURSOR (ITI HEAVY CHAIN H3) |
| 7750 | 20810 | 34300 | 17.46 | 9.1E-01 | AA806623.1 | EST_HUMAN | ob71g08.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1336862 3' |
| 7916 | 20967 | 34473 | 2.81 | 9.1E-01 | U72995.1 | NT | Rattus norvegicus Rab3 GDP/GTP exchange protein mRNA, complete cds |
| 10379 | 23414 | 37023 | 0.6 | 9.1E-01 | P38432 | SWISSPROT | P80-COILIN |
| 12595 | 26054 | | 19.67 | 9.1E-01 | AF050113.1 | NT | Homo sapiens uncoupling protein-3 (UCP3) gene, complete cds |
| 3277 | 16451 | 29472 | 0.8 | 9.0E-01 | 7661625 | NT | Homo sapiens DKFZP564M2423 protein (DKFZP564M2423), mRNA |
| 3439 | 16607 | | 0.73 | 9.0E-01 | AL161515.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 27 |
| 4219 | 17368 | 30357 | 0.68 | 9.0E-01 | 8922310 | NT | Homo sapiens hypothetical protein FLJ10251 (FLJ10251), mRNA |
| 4498 | 17638 | 30620 | 1.43 | 9.0E-01 | AF099810.1 | NT | Homo sapiens neurexin III-alpha gene, partial cds |
| 5127 | 18252 | 31218 | 13.05 | 9.0E-01 | AF017729.1 | NT | Oryctolagus cuniculus Rad51 (RAD51) mRNA, complete cds |
| 7551 | 20623 | 34100 | 0.82 | 9.0E-01 | L42547.1 | NT | Danio rerio LIM class homeodomain protein (lim5) mRNA, complete cds |
| 7579 | 20651 | | 1.42 | 9.0E-01 | D38621.1 | NT | Xenopus laevis gene for aldolase, complete cds |

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|---|---|---|---|---|---|---|---|
| 9549 | 22614 | 36183 | 0.68 | 9.0E-01 | AF086761.1 | NT | Danio rerio semaphorin Z1a mRNA, complete cds |
| 10035 | 23073 | 36673 | 0.48 | 9.0E-01 | U39702.1 | NT | Mycoplasma genitalium section 24 of 51 of the complete genome |
| 12113 | 25093 | 38797 | 1.41 | 9.0E-01 | AF146793.2 | NT | Mus musculus neuromedin U precursor (Nmu) gene, partial cds; tPhLP (Tphlp) gene, partial cds; CLOCK (Clock) gene, complete cds; PFT27 (Pft27) gene, complete cds; and H5AR (H5ar) gene, complete cds |
| 5814 | 19004 | 32309 | 2.5 | 8.9E-01 | AF026198.1 | NT | Fugu rubripes neural cell adhesion molecule L1 homolog (L1-CAM) gene, complete cds; putative protein 1 (PUT1) gene, partial cds; mitosis-specific chromosome segregation protein SMC1 homolog (SMC1) gene, complete cds; and calcium channel alpha-1 subunit> |
| 6378 | 19547 |  | 1.28 | 8.9E-01 | X60986.1 | NT | Rabbit MHC fragment RLA-DF DNA |
| 6590 | 25827 | 33134 | 0.82 | 8.9E-01 | BF217939.1 | EST_HUMAN | 601882708F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4095216 5' |
| 6590 | 25827 | 33135 | 0.82 | 8.9E-01 | BF217939.1 | EST_HUMAN | 601882708F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4095216 5' |
| 8621 | 21701 | 35237 | 0.92 | 8.9E-01 | AF260667.1 | NT | Olthona nana cytochrome-c oxidase subunit I (coxI) gene, partial cds; mitochondrial gene for mitochondrial product |
| 12080 | 25060 | 38766 | 2.72 | 8.9E-01 | AE003944.1 | NT | Xylella fastidiosa, section 90 of 229 of the complete genome |
| 12423 | 25300 |  | 4.02 | 8.9E-01 | AE002186.2 | NT | Chlamydophila pneumoniae AR39, section 21 of 94 of the complete genome |
| 4664 | 17799 | 30786 | 2.11 | 8.8E-01 | O26350 | SWISSPROT | PUTATIVE F420-DEPENDENT NADP REDUCTASE |
| 5489 | 18688 | 31706 | 0.66 | 8.8E-01 | AF310617.1 | NT | Pseudorabies virus Ea glycoprotein M gene, complete cds |
| 7701 | 20766 | 34250 | 0.69 | 8.8E-01 | M81182.1 | NT | Homo sapiens peroxisomal 70 kD membrane protein mRNA, complete cds |
| 10436 | 23471 | 37077 | 1.07 | 8.8E-01 | 7656978 | NT | Homo sapiens cell death-inducing DFFA-like effector B (CIDEB), mRNA |
| 11337 | 24400 | 38049 | 2.23 | 8.8E-01 | Z28337.1 | NT | M.aeruginosa (HUB 5-2-4) DNA from plasmid PMA1 |
| 12092 | 26072 | 38779 | 7.56 | 8.8E-01 | AA808055.1 | EST_HUMAN | oc38h11.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1352037 3' similar to contains Alu repetitive element;contains element MER22 repetitive element ; |
| 12240 | 26158 |  | 2.13 | 8.8E-01 | D90911.1 | NT | Synechocystis sp. PCC6803 complete genome, 13/27, 1576593-1719643 |
| 477 | 13672 | 26704 | 2 | 8.7E-01 | AF106953.2 | NT | Homo sapiens SOS1 (SOS1) gene, partial cds |
| 2475 | 15602 | 28727 | 0.98 | 8.7E-01 | 5901893 | NT | Homo sapiens AT-binding transcription factor 1 (ATBF1), mRNA |
| 2938 | 16115 | 29127 | 5.32 | 8.7E-01 | AA595863.1 | EST_HUMAN | nn05f11.s1 NCI_CGAP_Pr4.1 Homo sapiens cDNA clone IMAGE:1076877 |
| 5120 | 18246 |  | 4.12 | 8.7E-01 | AF121970.1 | NT | Pseudomonas aeruginosa topoisomerase (top), putative transcriptional regulatory protein OhbR (ohbR), ortho-halobenzoate 1,2-dioxygenase beta-ISP protein OhbA (ohbA), OhbC (ohbC), ortho-halobenzoate 1,2-dioxygenase alpha-ISP protein OhbB (ohbB), and put> |
| 8229 | 21311 | 34831 | 0.66 | 8.7E-01 | AW897335.1 | EST_HUMAN | RC4-NN0057-120500-013-c07 NN0057 Homo sapiens cDNA |
| 9130 | 22209 | 35752 | 0.66 | 8.7E-01 | AI239456.1 | EST_HUMAN | qh36e06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1846786 3' |
| 9130 | 22209 | 35753 | 0.66 | 8.7E-01 | AI239456.1 | EST_HUMAN | qh36e06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1846786 3' |
| 9939 | 22978 | 36569 | 2.07 | 8.7E-01 | AE004963.1 | NT | Pseudomonas aeruginosa PA01, section 524 of 529 of the complete genome |
| 10511 | 23546 | 37156 | 1.08 | 8.7E-01 | BF570169.1 | EST_HUMAN | 602185541T1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4309906 3' |

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## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10511 | 23546 | 37157 | 1.08 | 8.7E-01 | BF570169.1 | EST_HUMAN | 602185541T1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4309906 3' |
| 11070 | 24145 | 37782 | 5.87 | 8.7E-01 | BF363970.1 | EST_HUMAN | QV0-NN1021-100800-337-c03 NN1021 Homo sapiens cDNA |
| 12034 | 25017 | 38720 | 3.32 | 8.7E-01 | BF107694.1 | EST_HUMAN | 601823684R1 NIH_MGC_79 Homo sapiens cDNA clone IMAGE:4043564 3' |
| 12034 | 25017 | 38721 | 3.32 | 8.7E-01 | BF107694.1 | EST_HUMAN | 601823684R1 NIH_MGC_79 Homo sapiens cDNA clone IMAGE:4043564 3' |
| 12652 | 25940 |  | 2.8 | 8.7E-01 | AV661898.1 | EST_HUMAN | AV661898 GLC Homo sapiens cDNA clone GLCGYG07 3' |
| 487 | 13681 |  | 2.39 | 8.6E-01 | X17012.1 | NT | Rat IGFII gene for insulin-like growth factor II |
| 881 | 14057 | 27123 | 3.14 | 8.6E-01 | W69089.1 | EST_HUMAN | zd44e03.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:343516 5' |
| 2344 | 15475 | 28608 | 1.31 | 8.6E-01 | 4503210 | NT | Homo sapiens cytochrome P450, subfamily XXVIIA (steroid 27-hydroxylase, cerebrotendinous xanthomatosis), polypeptide 1 (CYP27A1b) mRNA |
| 3710 | 16871 | 29875 | 0.85 | 8.6E-01 | AL161565.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 65 |
| 3901 | 17060 | 30069 | 1.31 | 8.6E-01 | U49724.1 | NT | Drosophila melanogaster merlin (Dmerlin) mRNA, complete cds |
| 6019 | 19202 | 32521 | 10.02 | 8.6E-01 | X60547.1 | NT | Chicken lipoprotein lipase gene |
| 6019 | 19202 | 32522 | 10.02 | 8.6E-01 | X60547.1 | NT | Chicken lipoprotein lipase gene |
| 6508 | 25825 | 33042 | 0.7 | 8.6E-01 | S76772.1 | NT | polyprotein [Coxsackie B4 virus CB4, host=mice, E2, originally derived from Edwards CB4 human strain, Genomic RNA Complete, 7397 nt] |
| 6848 | 20001 | 33409 | 1.96 | 8.6E-01 | AF143732.1 | NT | Grus canadensis recombination activating protein 1 (RAG-1) gene, partial cds |
| 6848 | 20001 | 33410 | 1.96 | 8.6E-01 | AF143732.1 | NT | Grus canadensis recombination activating protein 1 (RAG-1) gene, partial cds |
| 7696 | 20761 |  | 0.64 | 8.6E-01 | AE000591.1 | NT | Helicobacter pylori 26695 section 69 of 134 of the complete genome |
| 8112 | 21194 |  | 1.82 | 8.6E-01 | AP001518.1 | NT | Bacillus halodurans genomic DNA, section 12/14 |
| 8232 | 21314 | 34834 | 0.56 | 8.6E-01 | AF077837.1 | NT | Drosophila melanogaster collapsin response mediator protein (CRMP) mRNA, complete cds |
| 9887 | 22927 |  | 0.54 | 8.6E-01 | AE000979.1 | NT | Archaeoglobus fulgidus section 128 of 172 of the complete genome |
| 12856 | 25883 |  | 2.11 | 8.6E-01 | AL112162.1 | NT | Botrytis cinerea strain T4 cDNA library under conditions of nitrogen deprivation |
| 2509 | 15635 |  | 1.46 | 8.5E-01 | AJ011624.1 | NT | Arabidopsis thaliana (ecotype Columbia) spl2 gene, exons 1-5 |
| 6866 | 20018 | 33427 | 1.1 | 8.5E-01 | AF165214.1 | NT | Bacteriophage D3, complete genome |
| 7694 | 20759 | 34243 | 2.36 | 8.5E-01 | BE542612.1 | EST_HUMAN | 601067107F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3453505 5' |
| 8180 | 21262 | 34784 | 0.57 | 8.5E-01 | AL161572.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 68 |
| 8613 | 21693 | 35230 | 0.92 | 8.5E-01 | P06601 | SWISSPROT | SEGMENTATION PROTEIN PAIRED |
| 8613 | 21693 | 35231 | 0.92 | 8.5E-01 | P06601 | SWISSPROT | SEGMENTATION PROTEIN PAIRED |
| 8702 | 21782 | 35315 | 0.68 | 8.5E-01 | AJ243213.1 | NT | Homo sapiens partial 5-HT4 receptor gene, exons 2 to 5 |
| 10558 | 23593 | 37198 | 1.49 | 8.5E-01 | AB006799.1 | NT | Cyanidium caldarium gene for SigC, complete cds |
| 10558 | 23593 | 37199 | 1.49 | 8.5E-01 | AB006799.1 | NT | Cyanidium caldarium gene for SigC, complete cds |
| 12577 | 26056 |  | 5.29 | 8.5E-01 | 11418543 | NT | Homo sapiens human immunodeficiency virus type I enhancer-binding protein 1 (HIVEP1), mRNA |
| 12585 | 25394 |  | 6.39 | 8.5E-01 | 9507008 | NT | Rattus norvegicus protein tyrosine phosphatase, non-receptor type 5 (Ptpn5), mRNA |
| 4873 | 18006 | 30989 | 0.68 | 8.4E-01 | AF083975.2 | NT | Fowl adenovirus 8, complete genome |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5611 | 25808 | 31871 | 2.75 | 8.4E-01 | L78726.1 | NT | Human fibroblast growth factor receptor 3 (FGFR3) gene, intron 7 |
| 5611 | 25808 | 31872 | 2.75 | 8.4E-01 | L78726.1 | NT | Human fibroblast growth factor receptor 3 (FGFR3) gene, intron 7 |
| 7991 | 21041 | 34553 | 0.57 | 8.4E-01 | AF051142.1 | NT | Mamestra brassicae pheromone binding protein 2 precursor (PBP2) mRNA, complete cds |
| 10163 | 23200 | | 3.42 | 8.4E-01 | AJ248287.1 | NT | Pyrococcus abyssi complete genome; segment 5/6 |
| 760 | 13941 | 26986 | 2.17 | 8.3E-01 | M93437.1 | NT | Thermus thermophilus cytochrome c-552 (cycA) and CycB (cycB) genes, complete cds |
| 3164 | 16339 | 29347 | 3.45 | 8.3E-01 | AL161506.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 18 |
| 3912 | 17071 | 30069 | 0.69 | 8.3E-01 | AB010879.1 | NT | Nicotiana tabacum mRNA for chloroplast ribosomal protein L10, complete cds |
| 4120 | 17274 | 30273 | 3.17 | 8.3E-01 | Y19177.1 | NT | Streptomyces antibioticus polyketide biosynthetic gene cluster |
| 6383 | 18585 | 31464 | 2.32 | 8.3E-01 | AL161540.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 40 |
| 9870 | 22910 | | 4 | 8.3E-01 | AI791952.1 | EST_HUMAN | nn01f12.y5 NCI_CGAP_Co9 Homo sapiens cDNA clone IMAGE:1076495 5' similar to contains THR.t1 THR repetitive element ; |
| 10316 | 23351 | 36958 | 1.32 | 8.3E-01 | AF098070.1 | NT | Drosophila melanogaster Lis1 homolog mRNA, complete cds |
| 10423 | 23458 | 37063 | 3.9 | 8.3E-01 | AF108133.1 | NT | Mus musculus neuro-d4 gene, exons 3 through 12 and partial cds |
| 10911 | 23994 | 37627 | 2.18 | 8.3E-01 | AE000903.1 | NT | Methanobacterium thermoautotrophicum from bases 1270510 to 1283409 (section 109 of 148) of the complete genome |
| 10930 | 24012 | | 1.65 | 8.3E-01 | 7212472 | NT | Phytophthora infestans mitochondrion, complete genome |
| 11684 | 24637 | 38317 | 9.95 | 8.3E-01 | AF020503.1 | NT | Homo sapiens FRA3B common fragile region, diadenosine triphosphate hydrolase (FHIT) gene, exon 5 |
| 2111 | 15249 | 28369 | 2.72 | 8.2E-01 | AB000489.1 | NT | Rattus norvegicus mRNA for RPHO-1, complete cds |
| 2166 | 15292 | | 1.32 | 8.2E-01 | AF145589.1 | NT | Mus musculus trophinin (Tnn) gene, complete cds |
| 2744 | 15861 | | 0.95 | 8.2E-01 | AW376990.1 | EST_HUMAN | IL3-CT0219-161199-031-C08 CT0219 Homo sapiens cDNA |
| 4009 | 17166 | 30174 | 0.68 | 8.2E-01 | AB014574.1 | NT | Homo sapiens mRNA for KIAA0674 protein, partial cds |
| 4247 | 17393 | 30381 | 0.7 | 8.2E-01 | Z72584.1 | NT | S.cerevisiae chromosome VII reading frame ORF YGL062w |
| 4247 | 17393 | 30382 | 0.7 | 8.2E-01 | Z72584.1 | NT | S.cerevisiae chromosome VII reading frame ORF YGL062w |
| 5217 | 18338 | 31311 | 1.19 | 8.2E-01 | AB000489.1 | NT | Rattus norvegicus mRNA for RPHO-1, complete cds |
| 6781 | 19936 | 33332 | 0.59 | 8.2E-01 | X95283.1 | NT | G.gallus mRNA for C-Serrate-1 protein |
| 6781 | 19936 | 33333 | 0.59 | 8.2E-01 | X95283.1 | NT | G.gallus mRNA for C-Serrate-1 protein |
| 6913 | 20228 | 33661 | 0.76 | 8.2E-01 | AJ010142.1 | NT | Amanita muscaria mRNA for SCIII25 protein |
| 7037 | 20173 | 33595 | 3.19 | 8.2E-01 | AW379433.1 | EST_HUMAN | CM4-HT0243-081199-037-e01 HT0243 Homo sapiens cDNA |
| 7419 | 25844 | 33966 | 4.48 | 8.2E-01 | Z12126.1 | NT | S.cerevisiae MET, LEU4, and POL1 genes encoding MET4 protein, alpha-isopropylmalate (alpha-IPM) synthetase (partial), and DNA polymerase alpha (partial) |
| 8639 | 21719 | 35256 | 0.55 | 8.2E-01 | BE263145.1 | EST_HUMAN | 601144885F2 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3160412 5' |
| 10231 | 23266 | 36856 | 0.81 | 8.2E-01 | AB014530.1 | NT | Homo sapiens mRNA for KIAA0630 protein, partial cds |
| 10264 | 23299 | 36897 | 1.51 | 8.2E-01 | AF052659.1 | NT | Homo sapiens thioredoxin-related protein mRNA, complete cds |

Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10428 | 23463 | 37070 | 0.54 | 8.2E-01 | AF223888.1 | NT | Oncorhynchus tshawytscha isolate T-20 somatolactin precursor gene, exon 1 |
| 10428 | 23463 | 37071 | 0.54 | 8.2E-01 | AF223888.1 | NT | Oncorhynchus tshawytscha isolate T-20 somatolactin precursor gene, exon 1 |
| 10596 | 23631 | 37239 | 3.78 | 8.2E-01 | Q9JI70 | SWISSPROT | MCKUSICK-KAUFMAN/BARDET-BIEDL SYNDROMES PUTATIVE CHAPERONIN |
| 10596 | 23631 | 37240 | 3.78 | 8.2E-01 | Q9JI70 | SWISSPROT | MCKUSICK-KAUFMAN/BARDET-BIEDL SYNDROMES PUTATIVE CHAPERONIN |
| 11942 | 24928 | 38631 | 4.72 | 8.2E-01 | L10127.1 | NT | Molluscum contagiosum virus type 1 ORF1 and ORF2 DNA |
| 12030 | 25013 | 38716 | 5.12 | 8.2E-01 | P10383 | SWISSPROT | OVARIAN TUMOR LOCUS PROTEIN |
| 12035 | 25018 | 38722 | 3.97 | 8.2E-01 | H87398.1 | EST_HUMAN | yw14d02.r1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:252195 5' similar to gb:M36072 60S RIBOSOMAL PROTEIN L7A (HUMAN); |
| 12607 | 25406 | 32046 | 3.01 | 8.2E-01 | AJ001261.1 | NT | Mus musculus mRNA for NIPSNAP2 protein |
| 2817 | 15931 |  | 1.38 | 8.1E-01 | AF191839.1 | NT | Mus musculus TANK binding kinase TBK1 (Tbk1) mRNA, complete cds |
| 3547 | 16712 | 29723 | 2.77 | 8.1E-01 | AF055066.1 | NT | Homo sapiens MHC class 1 region |
| 3547 | 16712 | 29724 | 2.77 | 8.1E-01 | AF055066.1 | NT | Homo sapiens MHC class 1 region |
| 4730 | 17866 | 30847 | 0.63 | 8.1E-01 | 4506290 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type 2 (PTPN2) mRNA |
| 5825 | 19015 | 32321 | 0.63 | 8.1E-01 | Q01727 | SWISSPROT | MELANOCYTE STIMULATING HORMONE RECEPTOR (MSH-R) (MELANOTROPIN RECEPTOR) (MELANOCORTIN-1 RECEPTOR) (MC1-R) |
| 6445 | 19612 | 32975 | 0.89 | 8.1E-01 | U16790.1 | NT | Mus musculus putative collagen alpha-2 (XI) chain (COL11A2) gene, partial cds |
| 6759 | 19915 | 33309 | 2.17 | 8.1E-01 | Q13491 | SWISSPROT | NEURONAL MEMBRANE GLYCOPROTEIN M6-B |
| 6759 | 19915 | 33310 | 2.17 | 8.1E-01 | Q13491 | SWISSPROT | NEURONAL MEMBRANE GLYCOPROTEIN M6-B |
| 7681 | 20746 | 34227 | 0.7 | 8.1E-01 | O47477 | SWISSPROT | CYTOCHROME B |
| 8095 | 21177 | 34693 | 1.1 | 8.1E-01 | AF022713.2 | NT | Drosophila melanogaster putative inorganic phosphate cotransporter (Picot) gene, partial cds; putative sodium channel (Nach) and putative amylase-related protein (Amyrel) genes, complete cds; and putative serine-enriched protein (gprs) gene, partial cd> |
| 8095 | 21177 | 34694 | 1.1 | 8.1E-01 | AF022713.2 | NT | Drosophila melanogaster putative inorganic phosphate cotransporter (Picot) gene, partial cds; putative sodium channel (Nach) and putative amylase-related protein (Amyrel) genes, complete cds; and putative serine-enriched protein (gprs) gene, partial cd> |
| 8808 | 21887 | 35428 | 0.91 | 8.1E-01 | AP001517.1 | NT | Bacillus halodurans genomic DNA, section 11/14 |
| 8808 | 21887 | 35429 | 0.91 | 8.1E-01 | AP001517.1 | NT | Bacillus halodurans genomic DNA, section 11/14 |
| 8969 | 22048 | 35591 | 1.14 | 8.1E-01 | AW242647.1 | EST_HUMAN | xn01h03.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2692469 3' similar to SW:LYAR_MOUSE Q08288 CELL GROWTH REGULATING NUCLEOLAR PROTEIN. ;contains MER22.b1 PTR5 repetitive element ; |
| 10330 | 23365 | 36974 | 0.58 | 8.1E-01 | P06425 | SWISSPROT | PROBABLE E4 PROTEIN |
| 10623 | 23657 | 37267 | 0.52 | 8.1E-01 | N84541.1 | EST_HUMAN | KK9872F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone KK9872 5' similar to EST(CLONE C-0PE11) |
| 10769 | 23802 |  | 0.54 | 8.1E-01 | AE001226.1 | NT | Treponema pallidum section 42 of 87 of the complete genome |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11772 | 24764 | 38459 | 2.62 | 8.1E-01 | BE938558.1 | EST_HUMAN | RC0-TN0080-220800-025-d10 TN0080 Homo sapiens cDNA |
| 11772 | 24764 | 38460 | 2.62 | 8.1E-01 | BE938558.1 | EST_HUMAN | RC0-TN0080-220800-025-d10.TN0080 Homo sapiens cDNA |
| 12303 | 25221 | 32102 | 2.22 | 8.1E-01 | AE001711.1 | NT | Thermotoga maritima section 23 of 136 of the complete genome |
| 181 | 13404 | | 2.62 | 8.0E-01 | AJ271510.1 | NT | Staphylococcus aureus partial pta gene for phosphate actyltransferase allele 15 |
| 299 | 13516 | 26549 | 10.2 | 8.0E-01 | AJ132772.1 | NT | Bos taurus futb and rtlf genes |
| 2093 | 15233 | | 1.95 | 8.0E-01 | BF530982.1 | EST_HUMAN | 602072473F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4215091 5' |
| 3146 | 16322 | 29334 | 1.32 | 8.0E-01 | AF127897.1 | NT | Saimiri boliviensis olfactory receptor (SBO27) gene, partial cds |
| 3387 | 16557 | 29572 | 1.29 | 8.0E-01 | AB006193.1 | NT | Mus musculus gene for oviductal glycoprotein, complete cds |
| 4655 | 17791 | 30775 | 6.77 | 8.0E-01 | X83739.2 | NT | G.gallus mRNA for nicotinic acetylcholine receptor (nAChR) beta 3 subunit |
| 5096 | 18224 | 31196 | 1 | 8.0E-01 | 7667352 | NT | Mus musculus myosin IXb (Myo9b), mRNA |
| 8179 | 21261 | | 2.66 | 8.0E-01 | AW901489.1 | EST_HUMAN | RC0-NN1012-270300-021-h06 NN1012 Homo sapiens cDNA |
| 8722 | 21802 | 35338 | 1.21 | 8.0E-01 | Y11095.1 | NT | Rice stripe virus RNA 3 |
| 10636 | 23669 | | 0.48 | 8.0E-01 | BE833329.1 | EST_HUMAN | QV3-OT0065-280600-250-c09 OT0065 Homo sapiens cDNA |
| 10827 | 23860 | 37483 | 0.48 | 8.0E-01 | AB045597.1 | NT | Gallus gallus PPAR gamma mRNA for peroxisome proliferator-activated receptor, complete cds |
| 11198 | 24267 | 37902 | 1.43 | 8.0E-01 | Q92793 | SWISSPROT | CREB-BINDING PROTEIN |
| 466 | 13681 | 26697 | 0.75 | 7.9E-01 | D11476.1 | NT | Lymantria dispar nuclear polyhedrosis virus gene for DNA polymerase, complete cds |
| 733 | 13915 | | 0.92 | 7.9E-01 | AE002130.1 | NT | Ureaplasma urealyticum section 31 of 59 of the complete genome |
| 1636 | 14787 | | 28.32 | 7.9E-01 | AB040885.1 | NT | Homo sapiens mRNA for KIAA1452 protein, partial cds |
| 1687 | 14839 | | 1.06 | 7.9E-01 | U32739.1 | NT | Haemophilus influenzae Rd section 54 of 163 of the complete genome |
| 2337 | 15468 | 28603 | 9.03 | 7.9E-01 | AB004816.1 | NT | Oryctolagus cuniculus mRNA for mitsugumin29, complete cds |
| 2338 | 15469 | 28604 | 4.11 | 7.9E-01 | AF130459.1 | NT | Danio rerio Trp4-associated protein Tap1A (tap1A) mRNA, complete cds |
| 3605 | 16769 | 29784 | 3.57 | 7.9E-01 | AF228664.1 | NT | Gallus gallus SOX8 transcription factor (SOX8) mRNA, complete cds |
| 4416 | 17557 | | 0.87 | 7.9E-01 | BE263612.1 | EST_HUMAN | 601192033F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3535785 5' |
| 4734 | 17869 | 30852 | 0.84 | 7.9E-01 | 6753745 | NT | Mus musculus embigin (Emb), mRNA |
| 4734 | 17869 | 30853 | 0.84 | 7.9E-01 | 6753745 | NT | Mus musculus embigin (Emb), mRNA |
| 5210 | 18331 | | 0.68 | 7.9E-01 | 6753753 | NT | Mus musculus enabled homolog (Drosophila) (Enah), mRNA |
| 5235 | 18357 | 31325 | 0.93 | 7.9E-01 | Z47210.1 | NT | S.pneumoniae dexB, cap3A, cap3B and cap3C genes and orfs |
| 6235 | 18357 | 31326 | 0.93 | 7.9E-01 | Z47210.1 | NT | S.pneumoniae dexB, cap3A, cap3B and cap3C genes and orfs |
| 5283 | 18402 | | 0.66 | 7.9E-01 | AF139718.1 | NT | Chrysomya bezziana peritrophin-48 precursor, gene, complete cds |
| 6475 | 19642 | 33003 | 0.68 | 7.9E-01 | D38145.1 | NT | Human mRNA for prostacyclin synthase, complete cds |
| 8300 | 21382 | 34903 | 2.66 | 7.9E-01 | X90996.1 | NT | P.sativum GR gene |
| 9747 | 22811 | 36390 | 3.24 | 7.9E-01 | U01912.1 | NT | Giardia lamblia variant-specific surface protein G3M-B (vspG3M-B) mRNA, partial cds |
| 10255 | 23290 | 36887 | 5.43 | 7.9E-01 | P19719 | SWISSPROT | SMALL HYDROPHOBIC PROTEIN |
| 10296 | 23331 | 36934 | 1.17 | 7.9E-01 | AV700860.1 | EST_HUMAN | AV700860 GKC Homo sapiens cDNA clone GKCDRE12 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10729 | 23762 | 37369 | 0.78 | 7.9E-01 | AB000631.1 | NT | Streptococcus mutans DNA for sigma 42 protein, dTDP-4-keto-L-rhamnose reductase, complete cds |
| 10845 | 23878 | 37498 | 0.61 | 7.9E-01 | P15305 | SWISSPROT | DYNEIN HEAVY CHAIN (DYHC) |
| 11256 | 24325 |  | 1.75 | 7.9E-01 | 7662471 | NT | Homo sapiens KIAA1072 protein (KIAA1072), mRNA |
| 11487 | 24546 | 38218 | 1.94 | 7.9E-01 | P19022 | SWISSPROT | NEURAL-CADHERIN PRECURSOR (N-CADHERIN) |
| 899 | 14074 |  | 1.49 | 7.8E-01 | Z43785.1 | EST_HUMAN | HSC1KH041 normalized infant brain cDNA Homo sapiens cDNA clone c-1kh04 |
| 2349 | 15480 | 28612 | 6.99 | 7.8E-01 | AW959567.1 | EST_HUMAN | EST371637 MAGE resequences, MAGF Homo sapiens cDNA |
| 4823 | 17956 | 30942 | 0.73 | 7.8E-01 | U87305.1 | NT | Rattus norvegicus transmembrane receptor Unc5H1 mRNA, complete cds |
| 5149 | 18271 |  | 0.89 | 7.8E-01 | AW753353.1 | EST_HUMAN | RC3-CT0254-130100-023-c02 CT0254 Homo sapiens cDNA |
| 6194 | 19370 | 32721 | 2.26 | 7.8E-01 | AF115856.1 | NT | Sphenodon punctatus alpha enolase mRNA, partial cds |
| 6348 | 19518 | 32876 | 2.28 | 7.8E-01 | P05231 | SWISSPROT | INTERLEUKIN-6 PRECURSOR (IL-6) (B-CELL STIMULATORY FACTOR 2) (BSF-2) (INTERFERON BETA-2) (HYBRIDOMA GROWTH FACTOR) |
| 6591 | 19751 | 33136 | 0.84 | 7.8E-01 | AL445066.1 | NT | Thermoplasma acidophilum complete genome; segment 4/5 |
| 8688 | 21768 | 35299 | 1.13 | 7.8E-01 | BF108927.1 | EST_HUMAN | 7l54d05.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3525176 3' |
| 9434 | 22508 | 36074 | 1.53 | 7.8E-01 | Y10159.1 | NT | D.discoideum racGAP gene |
| 9633 | 22698 | 36170 | 0.56 | 7.8E-01 | 4826873 | NT | Homo sapiens nucleoporin 214kD (CAIN) (NUP214), mRNA |
| 10329 | 23364 |  | 1.28 | 7.8E-01 | Q25452 | SWISSPROT | MUSCLE CALCIUM CHANNEL ALPHA-1 SUBUNIT (MDL-ALPHA1) |
| 12671 | 26033 |  | 1.92 | 7.8E-01 | L29260.1 | NT | Arabidopsis thaliana 1-amino-1-cyclopropanecarboxylate synthase (ACS6) gene, complete cds |
| 146 | 13371 | 26403 | 5.78 | 7.7E-01 | AF184345.1 | NT | Lycopersicon hirsutum ADP-glucose pyrophosphorylase large subunit (AGP-L1) mRNA, complete cds |
| 744 | 13925 |  | 1.72 | 7.7E-01 | AF050157.1 | NT | Mus musculus major histocompatibility locus class II region: major histocompatibility protein class II alpha chain (IAalpha) and major histocompatibility protein class II beta chain (IEbeta) genes, complete cds; butyrophilin-like (NG9), butyrophilin-II> |
| 2776 | 15892 | 29003 | 1.34 | 7.7E-01 | O33915 | SWISSPROT | CITRATE SYNTHASE |
| 3438 | 16606 |  | 0.89 | 7.7E-01 | 8393408 | NT | Homo sapiens UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 7 (GalNAc-T7) (GALNAC-T7), mRNA |
| 3689 | 16851 | 29859 | 3.86 | 7.7E-01 | AF118085.1 | NT | Homo sapiens PRO1975 mRNA, complete cds |
| 4516 | 17655 | 30643 | 3.38 | 7.7E-01 | AF199488.1 | NT | Coturnix coturnix japonica sub-species japonica beta-actin mRNA, partial cds |
| 4516 | 17655 | 30644 | 3.38 | 7.7E-01 | AF199488.1 | NT | Coturnix coturnix japonica sub-species japonica beta-actin mRNA, partial cds |
| 5678 | 18872 | 32159 | 1.39 | 7.7E-01 | P16553 | SWISSPROT | RAFFINOSE INVERTASE (INVERTASE) |
| 5678 | 18872 | 32160 | 1.39 | 7.7E-01 | P16553 | SWISSPROT | RAFFINOSE INVERTASE (INVERTASE) |
| 6076 | 19258 | 32587 | 1.41 | 7.7E-01 | R08600.1 | EST_HUMAN | yf24b02.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:127756 3' |
| 10049 | 23087 | 36689 | 0.68 | 7.7E-01 | AB021134.1 | NT | Daphnia magna hemoglobin gene cluster (dhb3, dhb1 and dhb2 genes), complete cds |
| 12462 | 25317 |  | 7.14 | 7.7E-01 | 11497621 | NT | Archaeoglobus fulgidus, complete genome |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6224 | 19399 | 32748 | 5.26 | 7.6E-01 | AF059510.1 | NT | Arabidopsis thaliana 3-methylcrotonyl-CoA carboxylase non-biotinylated subunit (MCCB) mRNA, complete cds |
| 6224 | 19399 | 32749 | 5.26 | 7.6E-01 | AF059510.1 | NT | Arabidopsis thaliana 3-methylcrotonyl-CoA carboxylase non-biotinylated subunit (MCCB) mRNA, complete cds |
| 6647 | 19806 | 33193 | 0.66 | 7.6E-01 | P37938 | SWISSPROT | MATING-TYPE PROTEIN A-ALPHA Z4 |
| 6990 | 18509 | 31501 | 0.74 | 7.6E-01 | AI253399.1 | EST_HUMAN | aq14b12.x1 Stanley Frontal NS pool 2 Homo sapiens cDNA clone IMAGE:2030879 |
| 6990 | 18509 | 31526 | 0.74 | 7.6E-01 | AI253399.1 | EST_HUMAN | aq14b12.x1 Stanley Frontal NS pool 2 Homo sapiens cDNA clone IMAGE:2030879 |
| 7196 | 20061 | 33472 | 0.84 | 7.6E-01 | U72487.1 | NT | Rattus norvegicus calcium-independent alpha-latrotoxin receptor mRNA, complete cds |
| 8255 | 21337 | 34855 | 1.54 | 7.6E-01 | AF146793.2 | NT | Mus musculus neuromedin U precursor (Nmu) gene, partial cds; tPhLP (Tphlp) gene, partial cds; CLOCK (Clock) gene, complete cds; PFT27 (Pft27) gene, complete cds; and H5AR (H5ar) gene, complete cds |
| 8318 | 21400 | 34924 | 2.38 | 7.6E-01 | 6857752 | NT | Mus musculus advillin (Advil-pending), mRNA |
| 8318 | 21400 | 34925 | 2.38 | 7.6E-01 | 6857752 | NT | Mus musculus advillin (Advil-pending), mRNA |
| 8520 | 21601 | 35137 | 0.53 | 7.6E-01 | Q01098 | SWISSPROT | GLUTAMATE [NMDA] RECEPTOR SUBUNIT EPSILON 3 PRECURSOR (N-METHYL D-ASPARTATE RECEPTOR SUBTYPE 2C) (NR2C) (NMDAR2C) |
| 8520 | 21601 | 35138 | 0.53 | 7.6E-01 | Q01098 | SWISSPROT | GLUTAMATE [NMDA] RECEPTOR SUBUNIT EPSILON 3 PRECURSOR (N-METHYL D-ASPARTATE RECEPTOR SUBTYPE 2C) (NR2C) (NMDAR2C) |
| 9167 | 22245 | 35789 | 1.33 | 7.6E-01 | 6753577 | NT | Mus musculus cytochrome P450, 2b9, phenobarbitol inducible, type a (Cyp2b9), mRNA |
| 9479 | 22536 | 36100 | 5.24 | 7.6E-01 | P30372 | SWISSPROT | MUSCARINIC ACETYLCHOLINE RECEPTOR M2 |
| 9479 | 22536 | 36101 | 5.24 | 7.6E-01 | P30372 | SWISSPROT | MUSCARINIC ACETYLCHOLINE RECEPTOR M2 |
| 11639 | 24719 | 38411 | 2.29 | 7.6E-01 | X86347.1 | NT | H.aspersa mRNA for neurofilament NF70 |
| 11639 | 24719 | 38412 | 2.29 | 7.6E-01 | X86347.1 | NT | H.aspersa mRNA for neurofilament NF70 |
| 12010 | 24995 |  | 2.78 | 7.6E-01 | AL161592.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 88 |
| 12203 | 25157 |  | 8.21 | 7.6E-01 | AB020702.1 | NT | Homo sapiens mRNA for KIAA0895 protein, partial cds |
| 526 | 13719 |  | 1.31 | 7.5E-01 | AL163301.2 | NT | Homo sapiens chromosome 21 segment HS21C101 |
| 597 | 13787 | 26807 | 1.08 | 7.5E-01 | AF020503.1 | NT | Homo sapiens FRA3B common fragile region, diadenosine triphosphate hydrolase (FHIT) gene, exon 5 |
| 7690 | 20755 | 34240 | 0.8 | 7.5E-01 | AF052730.1 | NT | Drosophila melanogaster tyrosine kinase receptor protein (eph) mRNA, complete cds |
| 12521 | 25354 |  | 5.2 | 7.5E-01 | AF163151.2 | NT | Homo sapiens dentin sialophosphoprotein precursor (DSPP) gene, complete cds |
| 1154 | 14318 | 27372 | 1.61 | 7.4E-01 | AI598146.1 | EST_HUMAN | tn14b09.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2167577 3' similar to contains Alu repetitive element;contains element MIR repetitive element ; |
| 2419 | 15548 | 28676 | 0.97 | 7.4E-01 | AB011106.1 | NT | Homo sapiens mRNA for KIAA0534 protein, partial cds |
| 3820 | 16980 | 29983 | 0.97 | 7.4E-01 | AF112538.1 | NT | Malva pusilla actin (Act1) mRNA, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4010 | 17167 | 30175 | 0.71 | 7.4E-01 | AF133310.1 | NT | Vibrio cholerae phage CTXphi Calcutta-rstR-a (rstR-a) and Calcutta-rstR-b (rstR-b) genes, complete cds |
| 4429 | 17569 | 30551 | 8.12 | 7.4E-01 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 8027 | 21110 | 34628 | 1.25 | 7.4E-01 | AL161551.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 51 |
| 8027 | 21110 | 34629 | 1.25 | 7.4E-01 | AL161551.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 51 |
| 8834 | 21913 | 35451 | 1.01 | 7.4E-01 | BF346266.1 | EST_HUMAN | 602018456F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4154340 5' |
| 8910 | 21989 | | 1.45 | 7.4E-01 | U87960.1 | NT | Rattus norvegicus leukocyte common antigen receptor (LAR) gene, trans-spliced alternative untranslated exon |
| 9298 | 22374 | 35925 | 6.86 | 7.4E-01 | BE747503.1 | EST_HUMAN | 601573026F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3834174 5' |
| 9357 | 22432 | 35990 | 1.24 | 7.4E-01 | AA187986.1 | EST_HUMAN | zp67h01.s1 Stratagene endothelial cell 937223 Homo sapiens cDNA clone IMAGE:625297 3' similar to SW:TCPQ_MOUSE P42932 T-COMPLEX PROTEIN 1, THETA SUBUNIT ; |
| 10613 | 23647 | 37256 | 0.7 | 7.4E-01 | 11424933 | NT | Homo sapiens NY-REN-45 antigen (LOC51133), mRNA |
| 12170 | 25133 | | 3.69 | 7.4E-01 | 6753217 | NT | Mus musculus complement component 1 inhibitor (C1nh), mRNA |
| 12287 | 25213 | | 1.7 | 7.4E-01 | AI472641.1 | EST_HUMAN | ta13h01.x1 NCI_CGAP_Lym5 Homo sapiens cDNA clone IMAGE:2043985 3' |
| 4083 | 17238 | | 0.73 | 7.3E-01 | AP000062.1 | NT | Aeropyrum pernix genomic DNA, section 5/7 |
| 4738 | 17873 | 30856 | 0.8 | 7.3E-01 | AE001166.1 | NT | Borrelia burgdorferi (section 52 of 70) of the complete genome |
| 4822 | 17955 | 30941 | 2.38 | 7.3E-01 | AF225421.1 | NT | Homo sapiens HT017 mRNA, complete cds |
| 6741 | 19897 | 33287 | 6.5 | 7.3E-01 | L35772.1 | NT | Mus musculus antigen (CD72) gene |
| 6741 | 19897 | 33288 | 6.5 | 7.3E-01 | L35772.1 | NT | Mus musculus antigen (CD72) gene |
| 7243 | 25841 | 33771 | 0.93 | 7.3E-01 | AJ011418.1 | NT | Lycopersicon esculentum mRNA for ubiquitin activating enzyme |
| 7617 | 20687 | 34163 | 0.69 | 7.3E-01 | Z14133.1 | NT | D.melanogaster Chc mRNA for clathrin heavy chain |
| 7718 | 20782 | 34268 | 7.25 | 7.3E-01 | M26511.1 | NT | V.alginolyticus sucrase (scrB) gene, complete cds |
| 7718 | 20782 | 34269 | 7.25 | 7.3E-01 | M26511.1 | NT | V.alginolyticus sucrase (scrB) gene, complete cds |
| 11714 | 24754 | 38448 | 3.29 | 7.3E-01 | AA678019.1 | EST_HUMAN | zi25b08.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:431799 3' |
| 11714 | 24754 | 38449 | 3.29 | 7.3E-01 | AA678019.1 | EST_HUMAN | zi25b08.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:431799 3' |
| 854 | 14031 | | 1.86 | 7.2E-01 | L29281.1 | NT | Rattus norvegicus initiation factor-2 kinase (eIF-2a) mRNA, complete cds |
| 2012 | 15152 | 28257 | 3.43 | 7.2E-01 | X79140.1 | NT | N.tabacum NeIF-4A13 mRNA |
| 2532 | 15657 | 28781 | 1.96 | 7.2E-01 | AB009605.1 | NT | Gallus gallus gene for melanocortin 2-receptor, complete cds |
| 3135 | 16311 | 29323 | 1.27 | 7.2E-01 | AF198100.1 | NT | Fowlpox virus, complete genome |
| 3541 | 16706 | 29717 | 2.36 | 7.2E-01 | AF065606.1 | NT | Giardia intestinalis variant-specific surface protein (vsp417-6) gene, vsp417-6/A-I allele, complete cds |
| 3702 | 16863 | 29866 | 1.35 | 7.2E-01 | AB002307.1 | NT | Human mRNA for KIAA0309 gene, partial cds |
| 3975 | 17132 | 30136 | 1.57 | 7.2E-01 | BF338350.1 | EST_HUMAN | 602035589F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4183222 5' |
| 4173 | 17323 | | 0.73 | 7.2E-01 | AF108093.1 | NT | Homo sapiens IA-2 gene, intron 18 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4892 | 18022 | 31007 | 2.68 | 7.2E-01 | D90314.1 | NT | L.mesenteroides gene for sucrose phosphorylase (EC 2.4.1.7) |
| 5225 | 18347 | 31317 | 1.07 | 7.2E-01 | AF196779.1 | NT | Homo sapiens transcription factor IGHM enhancer 3, JM11 protein, JM4 protein, JM5 protein, T54 protein, JM10 protein, A4 differentiation-dependent protein, triple LIM domain protein 6, and synaptophysin genes, complete cds; and L-type calcium channel a> |
| 5225 | 18347 | 31318 | 1.07 | 7.2E-01 | AF196779.1 | NT | Homo sapiens transcription factor IGHM enhancer 3, JM11 protein, JM4 protein, JM5 protein, T54 protein, JM10 protein, A4 differentiation-dependent protein, triple LIM domain protein 6, and synaptophysin genes, complete cds; and L-type calcium channel a> |
| 5308 | 18425 | 31395 | 0.65 | 7.2E-01 | AL161563.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 63 |
| 7362 | 20441 | 33903 | 0.59 | 7.2E-01 | U69633.1 | NT | Solanum tuberosum cold-stress inducible protein (C17) gene, complete cds |
| 8648 | 21728 | 35265 | 1.31 | 7.2E-01 | AF236061.1 | NT | Oryctolagus cuniculus RING-finger binding protein mRNA, partial cds |
| 9163 | 22241 |  | 0.54 | 7.2E-01 | AV743773.1 | EST_HUMAN | AV743773 CB Homo sapiens cDNA clone CBMAFD06 5' |
| 10548 | 23583 | 37192 | 2.25 | 7.2E-01 | BF670061.1 | EST_HUMAN | 602118381F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4275381 5' |
| 10977 | 24056 | 37690 | 3.26 | 7.2E-01 | U82623.1 | NT | Rattus norvegicus cytocentrin mRNA, complete cds |
| 12530 | 18491 | 31530 | 1.51 | 7.2E-01 | U02568.1 | NT | Dictyocaulus viviparus nematode polyprotein antigen precursor (DvA) mRNA, complete cds |
| 12737 | 25488 |  | 4.37 | 7.2E-01 | AP000063.1 | NT | Aeropyrum pernix genomic DNA, section 6/7 |
| 12784 | 26075 |  | 1.46 | 7.2E-01 | Y10168.1 | NT | B.thuringiensis PK1 & cap genes, putative |
| 710 | 13892 | 26928 | 11.37 | 7.1E-01 | D21070.1 | NT | Rana catesbeiana mRNA for bullfrog skeletal muscle calcium release channel (ryanodine receptor) alpha isoform(RyR1), complete cds |
| 3130 | 16306 | 29320 | 16.1 | 7.1E-01 | AJ270777.1 | NT | Homo sapiens partial TCF-4 gene for T-cell transcription factor-4, exons 15-16 |
| 4324 | 17467 | 30453 | 3.07 | 7.1E-01 | 7305360 | NT | Mus musculus otogelin (Otog), mRNA |
| 4324 | 17467 | 30454 | 3.07 | 7.1E-01 | 7305360 | NT | Mus musculus otogelin (Otog), mRNA |
| 6069 | 19251 | 32579 | 1.73 | 7.1E-01 | BF681034.1 | EST_HUMAN | 602155438F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4296344 5' |
| 6069 | 19251 | 32580 | 1.73 | 7.1E-01 | BF681034.1 | EST_HUMAN | 602155438F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4296344 5' |
| 7088 | 20182 | 33606 | 6.48 | 7.1E-01 | U36232.1 | NT | Drosophila melanogaster 6-pyruvoyltetrahydropterin synthase (pr) gene, complete cds |
| 8934 | 22013 | 35552 | 1.12 | 7.1E-01 | BE074185.1 | EST_HUMAN | RC1-BT0567-301299-011-d09 BT0567 Homo sapiens cDNA |
| 8934 | 22013 | 35553 | 1.12 | 7.1E-01 | BE074185.1 | EST_HUMAN | RC1-BT0567-301299-011-d09 BT0567 Homo sapiens cDNA |
| 10059 | 23097 | 36700 | 1.6 | 7.1E-01 | BE904405.1 | EST_HUMAN | 601496330F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3898495 5' |
| 10621 | 23655 | 37265 | 1.1 | 7.1E-01 | M12961.1 | NT | Human T-cell receptor germline gamma-chain J2 gene |
| 12505 | 25955 |  | 2.64 | 7.1E-01 | AA421492.1 | EST_HUMAN | zu06h11.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:731109 3' |
| 1257 | 14415 | 27479 | 0.95 | 7.0E-01 | AB014514.1 | NT | Homo sapiens mRNA for KIAA0614 protein, partial cds |
| 1257 | 14416 | 27480 | 0.95 | 7.0E-01 | AB014514.1 | NT | Homo sapiens mRNA for KIAA0614 protein, partial cds |
| 2521 | 15647 | 28770 | 1.29 | 7.0E-01 | N62412.1 | EST_HUMAN | yz73e07.s1 Soares_multiple_sclerosis_2NbHMSP Homo sapiens cDNA clone IMAGE:288708 3' similar to contains Alu repetitive element; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2521 | 15647 | 28771 | 1.29 | 7.0E-01 | N62412.1 | EST_HUMAN | yz73e07.s1 Soares_multiple_sclerosis_2NbHMSP Homo sapiens cDNA clone IMAGE:288708 3' similar to contains Alu repetitive element; |
| 5169 | 18291 | | 2.32 | 7.0E-01 | AL163301.2 | NT | Homo sapiens chromosome 21 segment HS21C101 |
| 6073 | 19255 | | 0.89 | 7.0E-01 | AB021316.1 | NT | Arabidopsis thaliana mRNA for chlorophyll b synthase, complete cds |
| 8573 | 21654 | | 6.52 | 7.0E-01 | AE000253.1 | NT | Escherichia coli K-12 MG1655 section 143 of 400 of the complete genome |
| 9517 | 22582 | 36150 | 0.58 | 7.0E-01 | U53868.1 | NT | Clostridium acetobutylicum mannitol-specific phosphotransferase system (PTS) system, mtlA, mtlR, mtlF, and mtlD genes, complete cds |
| 9517 | 22582 | 36151 | 0.58 | 7.0E-01 | U53868.1 | NT | Clostridium acetobutylicum mannitol-specific phosphotransferase system (PTS) system, mtlA, mtlR, mtlF, and mtlD genes, complete cds |
| 11382 | 24443 | 38102 | 1.47 | 7.0E-01 | AV763842.1 | EST_HUMAN | AV763842 MDS Homo sapiens cDNA clone MDSCHE04 5' |
| 11382 | 24443 | 38103 | 1.47 | 7.0E-01 | AV763842.1 | EST_HUMAN | AV763842 MDS Homo sapiens cDNA clone MDSCHE04 5' |
| 13133 | 25997 | 31772 | 1.47 | 7.0E-01 | 9630464 | NT | Bacteriophage N15 virion, complete genome |
| 992 | 14164 | 27224 | 6.3 | 6.9E-01 | U69674.1 | NT | Candida albicans squalene epoxidase (CAERG1) gene, complete cds and translational regulator gene, partial cds |
| 992 | 14164 | 27225 | 6.3 | 6.9E-01 | U69674.1 | NT | Candida albicans squalene epoxidase (CAERG1) gene, complete cds and translational regulator gene, partial cds |
| 1338 | 14495 | 27565 | 2.91 | 6.9E-01 | AA593530.1 | EST_HUMAN | nn28a09.s1 NCI_CGAP_Gas1 Homo sapiens cDNA clone IMAGE:1085176 3' |
| 3291 | 16465 | 29484 | 1.71 | 6.9E-01 | AE002271.2 | NT | Chlamydia muridarum, section 3 of 85 of the complete genome |
| 3531 | 16696 | 29707 | 15.79 | 6.9E-01 | Y17373.1 | NT | Mus musculus mRNA for immunoglobulin gamma heavy chain variable region, isolate PC 2811 |
| 5311 | 18428 | 31398 | 97.22 | 6.9E-01 | BE782751.1 | EST_HUMAN | 601465594F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3868943 5' |
| 5902 | 19091 | 32405 | 0.82 | 6.9E-01 | AB035662.1 | NT | Branchiostoma belcheri BbNA3 mRNA for notochord actin, complete cds |
| 6112 | 19292 | 32627 | 0.85 | 6.9E-01 | Y18278.1 | NT | Drosophila melanogaster mRNA for A-kinase anchor protein DAKAP550, partial |
| 6500 | 19666 | 33029 | 1.12 | 6.9E-01 | BE296188.1 | EST_HUMAN | 601177333F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532328 5' |
| 7979 | 21028 | 34542 | 0.58 | 6.9E-01 | AF248863.1 | NT | Strongylocentrotus purpuratus myosin V, complete cds |
| 8168 | 21250 | 34769 | 2.94 | 6.9E-01 | AL161573.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 69 |
| 8168 | 21250 | 34770 | 2.94 | 6.9E-01 | AL161573.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 69 |
| 9372 | 22447 | | 0.66 | 6.9E-01 | AF118046.1 | NT | Entamoeba dispar cation transporting ATPase (atpase) gene, partial cds |
| 9896 | 22936 | 36520 | 0.56 | 6.9E-01 | AF206319.1 | NT | Musa acuminata pectate lyase 1 (PL1) mRNA, complete cds |
| 9896 | 22936 | 36521 | 0.56 | 6.9E-01 | AF206319.1 | NT | Musa acuminata pectate lyase 1 (PL1) mRNA, complete cds |
| 10619 | 23653 | 37263 | 0.78 | 6.9E-01 | BF242367.1 | EST_HUMAN | 601880680F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:4109419 5' |
| 11536 | 24592 | 38268 | 2.11 | 6.9E-01 | D89013.1 | NT | Homo sapiens DAN gene, complete cds |
| 11536 | 24592 | 38269 | 2.11 | 6.9E-01 | D89013.1 | NT | Homo sapiens DAN gene, complete cds |
| 12146 | 25949 | | 3.77 | 6.9E-01 | Q99958 | SWISSPROT | FORKHEAD BOX PROTEIN C2 (FORKHEAD-RELATED PROTEIN FKHL14) (MESENCHYME FORK HEAD PROTEIN 1) (MFH-1 PROTEIN) (TRANSCRIPTION FACTOR FKH-14) |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 979 | 14152 | 27212 | 1.94 | 6.8E-01 | AF017784.1 | NT | Giardia intestinalis carbamate kinase gene, complete cds |
| 2739 | 15856 | | 1.41 | 6.8E-01 | D90917.1 | NT | Synechocystis sp. PCC6803 complete genome, 27/27, 3418852-3573470 |
| 2890 | 14798 | 27883 | 1.43 | 6.8E-01 | AA854475.1 | EST_HUMAN | aj75a05.s1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1402256 3' similar to gb:X56411_rna1 ALCOHOL DEHYDROGENASE CLASS II PI CHAIN (HUMAN); |
| 4694 | 17829 | 30815 | 1.32 | 6.8E-01 | J00762.1 | NT | Rat(hooded) prolactin gene : exon iii and flanks |
| 4980 | 18109 | 31085 | 0.62 | 6.8E-01 | 4758521 | NT | Homo sapiens hevin (HEVIN) mRNA |
| 9838 | 22878 | 36460 | 1.06 | 6.8E-01 | AB037766.1 | NT | Homo sapiens mRNA for KIAA1345 protein, partial cds |
| 10567 | 23602 | | 5.72 | 6.8E-01 | AA687936.1 | EST_HUMAN | nv13e07.s1 NCI_CGAP_Pr22 Homo sapiens cDNA clone IMAGE:1220100 3' similar to gb:X13546_rna1 Human HMG-17 gene for non-histone chromosomal protein (HUMAN); |
| 11344 | 24407 | 38056 | 2.4 | 6.8E-01 | AJ276675.1 | NT | Stagonospora avenae bgl1 gene for beta-glucosidase, exons 1-4 |
| 11344 | 24407 | 38057 | 2.4 | 6.8E-01 | AJ276675.1 | NT | Stagonospora avenae bgl1 gene for beta-glucosidase, exons 1-4 |
| 11376 | 24437 | 38096 | 1.91 | 6.8E-01 | AF038939.1 | NT | Mus musculus zinc finger protein (Peg3) mRNA, complete cds |
| 11376 | 24437 | 38097 | 1.91 | 6.8E-01 | AF038939.1 | NT | Mus musculus zinc finger protein (Peg3) mRNA, complete cds |
| 11579 | 24633 | 38312 | 1.57 | 6.8E-01 | AF164151.1 | NT | Anopheles gambiae strain M2 translation initiation factor 4C (1A) (eIF-4C) mRNA, complete cds |
| 11906 | 24893 | 38594 | 1.97 | 6.8E-01 | AF110520.1 | NT | Mus musculus major histocompatibility complex region NG27, NG28, RPS28, NADH oxidoreductase, NG29, KIFC1, Fas-binding protein, BING1, tapasin, RalGDS-like, KE2, BING4, beta 1,3-galactosyl transferase, and RPS18 genes, complete cds; Sacm21 gene, partial> |
| 11906 | 24893 | 38595 | 1.97 | 6.8E-01 | AF110520.1 | NT. | Mus musculus major histocompatibility complex region NG27, NG28, RPS28, NADH oxidoreductase, NG29, KIFC1, Fas-binding protein, BING1, tapasin, RalGDS-like, KE2, BING4, beta 1,3-galactosyl transferase, and RPS18 genes, complete cds; Sacm21 gene, partial> |
| 309 | 13525 | 26559 | 30.38 | 6.7E-01 | AF213884.1 | NT | Homo sapiens nuclear factor of kappa light polypeptide gene enhancer in B-cells 1 (NFKB1) gene, complete cds |
| 349 | 13560 | 26588 | 25.24 | 6.7E-01 | AF213884.1 | NT | Homo sapiens nuclear factor of kappa light polypeptide gene enhancer in B-cells 1 (NFKB1) gene, complete cds |
| 1961 | 15104 | | 1.14 | 6.7E-01 | M12132.1 | NT | Quail fast skeletal muscle troponin I gene, complete cds |
| 2214 | 15348 | 28477 | 1.98 | 6.7E-01 | AA451864.1 | EST_HUMAN | zx12g12.s1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:786310 3' similar to contains element TAR1 repetitive element ; |
| 2235 | 16058 | 28498 | 5.16 | 6.7E-01 | AF186073.1 | NT | Drosophila melanogaster Mst85C gene, complete cds; NMDMC Isoform (Nmdmc) gene, complete cds, alternatively spliced; and transcription factor (Relish) gene, complete cds, alternatively spliced |
| 3060 | 16236 | 29256 | 5.81 | 6.7E-01 | 6678580 | NT | Mus musculus Wiskott-Aldrich syndrome protein (Wasp), mRNA |
| 4575 | 17712 | 30696 | 0.62 | 6.7E-01 | X74421.1 | NT | S.tuberosum mRNA for glucose-6-phosphate dehydrogenase |
| 5826 | 18820 | 31894 | 1.44 | 6.7E-01 | J04836.1 | NT | M.barkeri ATPase alpha and beta subunit (atpA and atpB) genes, complete cds |
| 5626 | 18820 | 31895 | 1.44 | 6.7E-01 | J04836.1 | NT | M.barkeri ATPase alpha and beta subunit (atpA and atpB) genes, complete cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6083 | 19265 | 32594 | 0.79 | 6.7E-01 | AE001486.1 | NT | Helicobacter pylori, strain J99 section 47 of 132 of the complete genome |
| 6453 | 19620 | 32983 | 1.3 | 6.7E-01 | 9635035 | NT | Gallid herpesvirus 2, complete genome |
| 6453 | 19620 | 32984 | 1.3 | 6.7E-01 | 9635035 | NT | Gallid herpesvirus 2, complete genome |
| 6754 | 19910 | 33304 | 0.59 | 6.7E-01 | BE966241.2 | EST_HUMAN | 601660177R1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3905778 3' |
| 6754 | 19910 | 33305 | 0.59 | 6.7E-01 | BE966241.2 | EST_HUMAN | 601660177R1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3905778 3' |
| 7468 | 20543 |  | 3.97 | 6.7E-01 | AE004606.1 | NT | Pseudomonas aeruginosa PA01, section 167 of 529 of the complete genome |
| 7495 | 20570 | 34042 | 0.94 | 6.7E-01 | AE001486.1 | NT | Helicobacter pylori, strain J99 section 47 of 132 of the complete genome |
| 10348 | 23383 |  | 1.01 | 6.7E-01 | M34046.1 | NT | Human placental protein 14 (PP14) gene, complete cds |
| 11196 | 24265 | 37900 | 2.06 | 6.7E-01 | BF354649.1 | EST_HUMAN | CM3-HT0769-010600-197-c03 HT0769 Homo sapiens cDNA |
| 11746 | 23932 | 37558 | 2.75 | 6.7E-01 | O14357 | SWISSPROT | N-ACETYLGLUCOSAMINYL-PHOSPHATIDYLINOSITOL BIOSYNTHETIC PROTEIN GPI1 |
| 11959 | 24944 | 38649 | 2.48 | 6.7E-01 | AA342521.1 | EST_HUMAN | EST48065 Fetal spleen Homo sapiens cDNA 3' end |
| 2570 | 15695 | 28819 | 0.97 | 6.6E-01 | AF075240.1 | NT | Homo sapiens SLIT1 protein (SLIL2) mRNA, partial cds |
| 2765 | 15880 | 28989 | 1.13 | 6.6E-01 | AF199339.1 | NT | Homo sapiens lens epithelium-derived growth factor gene, alternatively spliced, complete cds |
| 3578 | 16743 | 29760 | 1.16 | 6.6E-01 | 4506880 | NT | Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A (SEMA5A) mRNA |
| 3748 | 16909 | 29913 | 4.58 | 6.6E-01 | Y07669.1 | NT | C.albicans random DNA marker, 282bp |
| 4225 | 17373 |  | 2.48 | 6.6E-01 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, RoRet gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| 6462 | 19629 | 32990 | 3.82 | 6.6E-01 | 6680577 | NT | Mus musculus kinesin light chain 2 (Klc2), mRNA |
| 7272 | 20355 | 33808 | 0.62 | 6.6E-01 | AE004458.1 | NT | Pseudomonas aeruginosa PA01, section 19 of 529 of the complete genome |
| 7272 | 20356 | 33809 | 0.62 | 6.6E-01 | AE004458.1 | NT | Pseudomonas aeruginosa PA01, section 19 of 529 of the complete genome |
| 7862 | 20916 | 34421 | 3.7 | 6.6E-01 | AV660506.1 | EST_HUMAN | AV660506 GLC Homo sapiens cDNA clone GLCGID04 3' |
| 8764 | 21843 | 35384 | 0.58 | 6.6E-01 | AV704700.1 | EST_HUMAN | AV704700 ADB Homo sapiens cDNA clone ADBCAF11 5' |
| 9865 | 22905 |  | 2.34 | 6.6E-01 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 10207 | 23243 |  | 0.51 | 6.6E-01 | AU118198.1 | EST_HUMAN | AU118198 HEMBA1 Homo sapiens cDNA clone HEMBA1003079 5' |
| 640 | 13825 | 26848 | 2.02 | 6.5E-01 | M75140.1 | NT | H.vulgaris Na,K-ATPase alpha subunit mRNA, complete cds |
| 640 | 13825 | 26849 | 2.02 | 6.5E-01 | M75140.1 | NT | H.vulgaris Na,K-ATPase alpha subunit mRNA, complete cds |
| 3519 | 16685 | 29696 | 5.6 | 6.5E-01 | AB041225.1 | NT | Mus musculus gene for Tob2, complete cds |
| 4148 | 17300 | 30292 | 1.73 | 6.5E-01 | 4504632 | NT | Homo sapiens interleukin 10 receptor, alpha (IL10RA) mRNA |
| 4397 | 17540 | 30521 | 7.71 | 6.5E-01 | AJ272265.1 | NT | Homo sapiens SPP2 gene for secreted phosphoprotein 24 precursor, exons 1-8 |
| 5174 | 18296 | 31258 | 2.88 | 6.5E-01 | U28921.1 | NT | Phaseolus vulgaris ATPase gamma subunit mRNA, nuclear gene encoding mitochondrial protein, partial cds |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5559 | 25807 | 31795 | 1.86 | 6.5E-01 | P18480 | SWISSPROT | TRANSCRIPTION REGULATORY PROTEIN SNF5 (SWI/SNF COMPLEX COMPONENT SNF5) (TRANSCRIPTION FACTOR TYE4) |
| 6865 | 20017 | 33426 | 1.3 | 6.5E-01 | D88348.1 | NT | Chicken mRNA for 115-kDa melanosomal matrix protein, complete cds |
| 7760 | 20819 | 34309 | 0.74 | 6.5E-01 | X04769.1 | NT | Murine Ig-related lambda(50) gene (exon 1) transcribed selectively in pre-B lymphocytes |
| 7846 | 20901 | 34404 | 0.99 | 6.5E-01 | AI799882.1 | EST_HUMAN | wc46a02.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2321642 3' |
| 10042 | 23080 |  | 0.86 | 6.5E-01 | T78904.1 | EST_HUMAN | yd21b04.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:108847 3' |
| 10542 | 23577 | 37186 | 2.53 | 6.5E-01 | AF119676.1 | NT | Mus musculus small GTP-binding protein RAB25 (Rab25) gene, complete cds |
| 10869 | 23954 | 37583 | 2.55 | 6.5E-01 | H87583.1 | EST_HUMAN | yw17f06.r1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:252515 5' |
| 10925 | 24008 | 37643 | 2.98 | 6.5E-01 | AA601287.1 | EST_HUMAN | no15c07.s1 NCI_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1100748 3' |
| 11030 | 24109 |  | 3.38 | 6.5E-01 | AU138078.1 | EST_HUMAN | AU138078 PLACE1 Homo sapiens cDNA clone PLACE1007810 5' |
| 11899 | 24887 | 38586 | 5.43 | 6.5E-01 | AF014115.1 | NT | Plasmodium berghei cytochrome c oxidase subunit III, cytochrome c oxidase subunit I, and cytochrome b genes, mitochondrial genes encoding mitochondrial proteins, complete cds |
| 12566 | 25386 |  | 8.69 | 6.5E-01 | BE465050.1 | EST_HUMAN | hv74a10.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3179130 3' |
| 12840 | 25889 |  | 3.83 | 6.5E-01 | Z74145.1 | NT | S.cerevisiae chromosome IV reading frame ORF YDL097c |
| 262 | 13481 | 26613 | 8.59 | 6.4E-01 | U48848.1 | NT | Drosophila melanogaster 8kd dynein light chain mRNA, complete cds |
| 3545 | 16710 | 29721 | 4.42 | 6.4E-01 | U48854.2 | NT | Mus musculus dystroglycan 1 (DAG1) gene, exons 1 and 2 and complete cds |
| 3964 | 17122 | 30126 | 1.46 | 6.4E-01 | AB046827.1 | NT | Homo sapiens mRNA for KIAA1607 protein, partial cds |
| 4614 | 17751 | 30731 | 0.74 | 6.4E-01 | Y12488.1 | NT | M.musculus whn gene |
| 4614 | 17751 | 30732 | 0.74 | 6.4E-01 | Y12488.1 | NT | M.musculus whn gene |
| 8812 | 21891 | 35432 | 1.68 | 6.4E-01 | AE001247.1 | NT | Treponema pallidum section 63 of 87 of the complete genome |
| 10221 | 23257 |  | 0.5 | 6.4E-01 | 11418320 | NT | Homo sapiens hypothetical protein FLJ10140 (FLJ10140), mRNA |
| 10294 | 23329 | 36933 | 7.31 | 6.4E-01 | U82828.1 | NT | Homo sapiens ataxia telangiectasia (ATM) gene, complete cds |
| 10309 | 23344 | 36949 | 1.31 | 6.4E-01 | BF670405.1 | EST_HUMAN | 602150289F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4291126 5' |
| 12693 | 25461 |  | 19.53 | 6.4E-01 | AV759212.1 | EST_HUMAN | AV759212 MDS Homo sapiens cDNA clone MDSCGC09 5' |
| 447 | 13643 | 26682 | 3.76 | 6.3E-01 | P05228 | SWISSPROT | HISTIDINE-RICH PROTEIN PRECURSOR (CLONE PFHRP-III) |
| 548 | 13741 | 26765 | 1.85 | 6.3E-01 | U32689.1 | NT | Haemophilus influenzae Rd section 4 of 163 of the complete genome |
| 2230 | 15364 | 28493 | 3.29 | 6.3E-01 | U81136.1 | NT | Shigella flexneri multi-antibiotic resistance locus |
| 2646 | 15769 | 28884 | 3.65 | 6.3E-01 | U75331.1 | NT | Gallus gallus bone morphogenetic protein 1 (BMP1) mRNA, partial cds |
| 2646 | 15769 | 28885 | 3.65 | 6.3E-01 | U75331.1 | NT | Gallus gallus bone morphogenetic protein 1 (BMP1) mRNA, partial cds |
| 3081 | 16257 |  | 0.93 | 6.3E-01 | Y17275.1 | NT | Lycopersicon esculentum p69a gene, complete CDS |
| 6189 | 19365 | 32713 | 0.84 | 6.3E-01 | BE093906.1 | EST_HUMAN | PM0-BT0757-010500-002-a05 BT0757 Homo sapiens cDNA |
| 6733 | 19889 | 33281 | 1.01 | 6.3E-01 | L27798.1 | NT | Streptococcus dysgalactiae (mag) gene, complete cds |
| 6733 | 19889 | 33282 | 1.01 | 6.3E-01 | L27798.1 | NT | Streptococcus dysgalactiae (mag) gene, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8718 | 21798 | | .3.44 | 6.3E-01 | BE902044.1 | EST_HUMAN | 601676889F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3959351 5' |
| 9087 | 22166 | 35712 | 0.79 | 6.3E-01 | S62927.1 | NT | glycoprotein IIIa {Alu 1 and 3 fusion junction} [human, Genomic Mutant, 300 nt] |
| 9421 | 22495 | 36062 | 0.65 | 6.3E-01 | BF216984.1 | EST_HUMAN | 601884050F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4102596 5' |
| 9620 | 22675 | 36245 | 3.14 | 6.3E-01 | 9627521 | NT | Variola virus, complete genome |
| 9620 | 22675 | 36246 | 3.14 | 6.3E-01 | 9627521 | NT | Variola virus, complete genome |
| 10142 | 23180 | | 0.68 | 6.3E-01 | AE002329.2 | NT | Chlamydia muridarum, section 59 of 85 of the complete genome |
| 10641 | 23675 | 37285 | 1.59 | 6.3E-01 | Z73003.1 | NT | S.cerevisiae chromosome VII reading frame ORF YGR218w |
| 10747 | 23780 | 37393 | 1 | 6.3E-01 | AE000313.1 | NT | Escherichia coli K-12 MG1655 section 203 of 400 of the complete genome |
| 10781 | 23814 | | 0.48 | 6.3E-01 | AW795395.1 | EST_HUMAN | PM0-UM0018-130500-003-g12 UM0018 Homo sapiens cDNA |
| 11315 | 24379 | 38024 | 1.78 | 6.3E-01 | AA877715.1 | EST_HUMAN | nr09h06.s1 NCI_CGAP_Co10 Homo sapiens cDNA clone IMAGE:1161371 3' similar to TR:O02916 O02916 HLARK. ; |
| 11620 | 24671 | 38359 | 6.18 | 6.3E-01 | AI904160.1 | EST_HUMAN | CM-BT043-090299-046 BT043 Homo sapiens cDNA . |
| 11709 | 24749 | 38442 | 1.66 | 6.3E-01 | P47003 | SWISSPROT | HYPOTHETICAL 13.7 KD PROTEIN IN INO1-IDS2 INTERGENIC REGION |
| 11888 | 24876 | 38573 | 2.12 | 6.3E-01 | P36073 | SWISSPROT | HYPOTHETICAL 15.3 KD PROTEIN IN VMA12-APN1 INTERGENIC REGION |
| 12086 | 25066 | 38772 | 1.47 | 6.3E-01 | 9838361 | NT | Beta vulgaris mitochondrion, complete genome |
| 12262 | 26130 | 31646 | 15.92 | 6.3E-01 | 9910293 | NT | Mus musculus keratin complex 2, gene 6g (Krt2-6g), mRNA |
| 12358 | 25257 | | 1.6 | 6.3E-01 | AF105227.1 | NT | Homo sapiens 3'-phosphoadenosine 5'-phosphosulfate synthetase (PAPSS) mRNA, complete cds |
| 12582 | 26029 | | 4.27 | 6.3E-01 | X83528.1 | NT | C.limicola pscD gene |
| 5991 | 19176 | 32497 | 2.15 | 6.2E-01 | Q10135 | SWISSPROT | HYPOTHETICAL 142.5 KD PROTEIN C23E2.02 IN CHROMOSOME I |
| 7664 | 20731 | | 3.59 | 6.2E-01 | AF022253.1 | NT | Mus musculus calcium-sensing receptor related protein 4 (Casr-rs4) mRNA, partial cds |
| 7715 | 25852 | 34266 | 1.16 | 6.2E-01 | AL021127.2 | NT | Mus musculus chromosome X contigA; putative Magea9 gene, Caltractin, NAD(P) steroid dehydrogenase and Zinc finger protein 185 |
| 8497 | 21578 | 35114 | 4.67 | 6.2E-01 | H72255.1 | EST_HUMAN | ys01e08.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:213542 3' |
| 9057 | 22136 | 35681 | 0.7 | 6.2E-01 | AF034411.1 | NT | Lycopersicon esculentum cytosolic Cu,Zn superoxide dismutase (Sod) gene, partial cds; and dehydroquinate dehydratase/shikimate:NADP oxidoreductase gene, complete cds |
| 9648 | 21091 | 34606 | 1.47 | 6.2E-01 | BE562687.1 | EST_HUMAN | 601336146F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3690010 5' |
| 9710 | 22759 | | 2.56 | 6.2E-01 | M24461.1 | NT | Human pulmonary surfactant-associated protein SP-B (SFTP3) mRNA, complete cds |
| 10283 | 23318 | 36919 | 6.83 | 6.2E-01 | AL161511.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 23 |
| 10426 | 23461 | 37067 | 0.63 | 6.2E-01 | 11420793 | NT | Homo sapiens potassium voltage-gated channel, Shab-related subfamily, member 1 (KCNB1), mRNA |
| 10426 | 23461 | 37068 | 0.63 | 6.2E-01 | 11420793 | NT | Homo sapiens potassium voltage-gated channel, Shab-related subfamily, member 1 (KCNB1), mRNA |
| 10756 | 23789 | 37405 | 5.75 | 6.2E-01 | P27410 | SWISSPROT | NON-STRUCTURAL POLYPROTEIN [CONTAINS: RNA-DIRECTED RNA POLYMERASE ; THIOL PROTEASE P3C ; HELICASE (2C LIKE PROTEIN); COAT PROTEIN] |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10756 | 23789 | 37406 | 5.76 | 6.2E-01 | P27410 | SWISSPROT | NON-STRUCTURAL POLYPROTEIN [CONTAINS: RNA-DIRECTED RNA POLYMERASE ; THIOL PROTEASE P3C ; HELICASE (2C LIKE PROTEIN); COAT PROTEIN] |
| 2468 | 15595 | | 6.27 | 6.1E-01 | 6678076 | NT | Mus musculus secreted acidic cysteine rich glycoprotein (Sparc), mRNA |
| 5653 | 18847 | 32129 | 1.33 | 6.1E-01 | M59940.1 | NT | Caenorhabditis elegans N2 CeMyoD (hlh-1) alternatively spliced genes, complete cds |
| 7009 | 20145 | 33564 | 3.4 | 6.1E-01 | M64733.1 | NT | Rat TRPM-2 gene, complete cds |
| 7009 | 20145 | 33565 | 3.4 | 6.1E-01 | M64733.1 | NT | Rat TRPM-2 gene, complete cds |
| 7160 | 20293 | 33736 | 0.67 | 6.1E-01 | AW105653.1 | EST_HUMAN | xd50h03.x1 NCI_CGAP_Ov23 Homo sapiens cDNA clone IMAGE:2597237 3' similar to gb:X12671_ma1 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1 (HUMAN); |
| 7254 | 20337 | 33787 | 0.69 | 6.1E-01 | Q63769 | SWISSPROT | SUSHI REPEAT-CONTAINING PROTEIN SRPX PRECURSOR (DRS PROTEIN) (DOWN-REGULATED BY V-SRC) |
| 8428 | 21509 | 35041 | 3.47 | 6.1E-01 | AF033535.1 | NT | Arabidopsis thaliana putative zinc transporter (ZIP1) mRNA, complete cds |
| 8995 | 22074 | 35612 | 1.51 | 6.1E-01 | 11431065 | NT | Homo sapiens mitogen-activated protein kinase kinase kinase kinase 4 (MAP4K4), mRNA |
| 8995 | 22074 | 35613 | 1.51 | 6.1E-01 | 11431065 | NT | Homo sapiens mitogen-activated protein kinase kinase kinase kinase 4 (MAP4K4), mRNA |
| 9615 | 22670 | 36239 | 20.44 | 6.1E-01 | AF236117.1 | NT | Homo sapiens G-protein coupled receptor EDG-7 mRNA, complete cds |
| 9615 | 22670 | 36240 | 20.44 | 6.1E-01 | AF236117.1 | NT | Homo sapiens G-protein coupled receptor EDG-7 mRNA, complete cds |
| 10047 | 23085 | 36686 | 1.05 | 6.1E-01 | AE004452.1 | NT | Pseudomonas aeruginosa PA01, section 13 of 529 of the complete genome |
| 10252 | 23287 | 36883 | 0.92 | 6.1E-01 | AF119117.1 | NT | Homo sapiens dopamine transporter (SLC6A3) gene, complete cds |
| 10833 | 23866 | 37489 | 0.47 | 6.1E-01 | AF025993.1 | NT | Sus scrofa neural cell adhesion molecule (NCAM) gene, 3' UTR and microsatellite repeat region |
| 12033 | 25016 | 38718 | 1.77 | 6.1E-01 | S83182.1 | NT | hyaluronan-binding protein=hepatocyte growth factor activator homolog [human, plasma, mRNA, 2408 nt] |
| 12033 | 25016 | 38719 | 1.77 | 6.1E-01 | S83182.1 | NT | hyaluronan-binding protein=hepatocyte growth factor activator homolog [human, plasma, mRNA, 2408 nt] |
| 13062 | 25695 | | 1.16 | 6.1E-01 | X95287.1 | NT | M.mazei orfA, orfB, and orfC of archaeal ABC-transporter system |
| 507 | 13701 | 26730 | 1.79 | 6.0E-01 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 575 | 13767 | | 4.74 | 6.0E-01 | 5802999 | NT | Homo sapiens adaptor-related protein complex 3, mu 2 subunit (CLA20), mRNA |
| 1393 | 14547 | 27623 | 1.83 | 6.0E-01 | AF065253.1 | NT | Human respiratory syncytial virus strain CH93-53b attachment protein (G) gene, complete cds |
| 3917 | 17076 | 30073 | 0.87 | 6.0E-01 | AJ233396.1 | NT | Viral hemorrhagic septicemia virus N, P, M, G, Nv, L genes, French strain 07-71 |
| 4305 | 17448 | | 1.26 | 6.0E-01 | AF058895.1 | NT | Homo sapiens Notch3 (NOTCH3) gene, exons 26, 27, and 28 |
| 5395 | 18597 | 31567 | 1.96 | 6.0E-01 | P20288 | SWISSPROT | D(2) DOPAMINE RECEPTOR |
| 5555 | 18753 | 31791 | 2.5 | 6.0E-01 | AW139713.1 | EST_HUMAN | UI-H-BI1-aeb-a-10-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2718619 3' |
| 6669 | 19828 | 33216 | 2.74 | 6.0E-01 | U38813.1 | NT | Musca domestica insecticide-susceptible strain voltage-sensitive sodium channel mRNA, complete cds |
| 6800 | 19955 | 33355 | 0.66 | 6.0E-01 | Q04912 | SWISSPROT | MACROPHAGE-STIMULATING PROTEIN RECEPTOR PRECURSOR (MSP RECEPTOR) (P185-RON) (CDW136) (CD136 ANTIGEN) |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6955 | 20268 | 33705 | 0.77 | 6.0E-01 | L10234.1 | NT | Strongylocentrotus purpuratus kinesin light chain isoform 2 mRNA, complete cds |
| 6955 | 20268 | 33706 | 0.77 | 6.0E-01 | L10234.1 | NT | Strongylocentrotus purpuratus kinesin light chain isoform 2 mRNA, complete cds |
| 7509 | 20583 | 34056 | 6.49 | 6.0E-01 | AJ277661.1 | NT | Homo sapiens partial LMO1 gene for LIM domain only 1 protein, exon 1 |
| 8315 | 21397 | 34922 | 4.15 | 6.0E-01 | P02835 | SWISSPROT | SEGMENTATION PROTEIN FUSHI TARAZU |
| 8315 | 21397 | 34923 | 4.15 | 6.0E-01 | P02835 | SWISSPROT | SEGMENTATION PROTEIN FUSHI TARAZU |
| 10028 | 23066 | 36664 | 1.57 | 6.0E-01 | AB008193.1 | NT | Homo sapiens genes for leukotriene B4 receptor BLT2, leukotriene B4 receptor BLT1, complete cds |
| 10480 | 23515 | | 1.04 | 6.0E-01 | Q01497 | SWISSPROT | PEROXISOMAL MEMBRANE PROTEIN PER9 (PEROXIN-3) |
| 10594 | 23629 | | 0.61 | 6.0E-01 | BE837779.1 | EST_HUMAN | RC2-FN0094-190700-017-d08 FN0094 Homo sapiens cDNA |
| 11312 | 24376 | 38021 | 1.38 | 6.0E-01 | AJ131892.1 | NT | Gallus gallus mRNA for Hyperion protein, 419 kD isoform |
| 11312 | 24376 | 38022 | 1.38 | 6.0E-01 | AJ131892.1 | NT | Gallus gallus mRNA for Hyperion protein, 419 kD isoform |
| 11646 | 24835 | 38529 | 2.74 | 6.0E-01 | AI420623.1 | EST_HUMAN | tf08f07.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2095621 3' |
| 12663 | 25440 | 32052 | 2.08 | 6.0E-01 | 11421663 | NT | Homo sapiens nuclear factor (erythroid-derived 2)-like 3 (NFE2L3), mRNA |
| 12781 | 25523 | | 1.46 | 6.0E-01 | AA706087.1 | EST_HUMAN | zj96g05.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:462776 3' |
| 12953 | 25956 | | 1.44 | 6.0E-01 | 5803136 | NT | Homo sapiens RNA binding motif protein 3 (RBM3), mRNA |
| 12998 | 25963 | 31766 | 5.46 | 6.0E-01 | 9055303 | NT | Mus musculus cGMP-inhibited phosphodiesterase (Pde3a), mRNA |
| 13032 | 25880 | | 8.12 | 6.0E-01 | BE157617.1 | EST_HUMAN | RC1-HT0375-030500-015-c03 HT0375 Homo sapiens cDNA |
| 1025 | 14196 | 27254 | 1.09 | 5.9E-01 | U32701.1 | NT | Haemophilus influenzae Rd section 16 of 163 of the complete genome |
| 3343 | 16516 | 29530 | 5.23 | 5.9E-01 | AL163267.2 | NT | Homo sapiens chromosome 21 segment HS21C067 |
| 3343 | 16516 | 29531 | 5.23 | 5.9E-01 | AL163267.2 | NT | Homo sapiens chromosome 21 segment HS21C067 |
| 3916 | 17075 | 30072 | 0.62 | 5.9E-01 | U74341.1 | NT | Pterodroma neglecta cytochrome b (cytb) gene, mitochondrial gene encoding mitochondrial protein, complete cds |
| 4337 | 17480 | | 3.95 | 5.9E-01 | AF162756.1 | NT | Rattus norvegicus cenexin 2 mRNA, partial cds |
| 5289 | 18407 | 31374 | 0.66 | 5.9E-01 | AF026566.1 | NT | Ovis aries SRY gene promoter region |
| 6594 | 19754 | 33140 | 1.95 | 5.9E-01 | AF065440.2 | NT | Homo sapiens low density lipoprotein receptor-related protein II (LRP2) gene, exon 1 and partial cds |
| 7416 | 20494 | 33962 | 3.08 | 5.9E-01 | AB023486.1 | NT | Homo sapiens gene for histamine H2 receptor, promoter region and complete cds |
| 7556 | 20628 | | 0.63 | 5.9E-01 | X68801.1 | NT | G.gallus gene for skeletal alpha-actinin, exon EF2 |
| 8188 | 21270 | 34795 | 0.48 | 5.9E-01 | D90911.1 | NT | Synechocystis sp. PCC6803 complete genome, 13/27, 1576593-1719643 |
| 8839 | 21918 | 35456 | 0.48 | 5.9E-01 | D12922.1 | NT | Legionella pneumophila gene for iron superoxide dismutase, complete cds |
| 9743 | 22807 | 36385 | 1.01 | 5.9E-01 | AF063204.2 | NT | Chlamydia trachomatis strain K/UW31/Cx major outer membrane protein (omp1) gene, complete cds |
| 10117 | 23155 | | 0.64 | 5.9E-01 | P06463 | SWISSPROT | E6 PROTEIN |
| 10391 | 23426 | 37033 | 1.28 | 5.9E-01 | P55284 | SWISSPROT | VASCULAR ENDOTHELIAL-CADHERIN PRECURSOR (VE-CADHERIN) (CADHERIN-5) |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10908 | 23991 | 37624 | 2.24 | 5.9E-01 | Q9X0I3 | SWISSPROT | THYMIDYLATE KINASE (DTMP KINASE) |
| 10916 | 23999 | 37632 | 1.71 | 5.9E-01 | AF197944.1 | NT | Xenopus laevis receptor protein tyrosine phosphatase delta (XPTP-D) mRNA, complete cds |
| 11203 | 24272 | 37908 | 2.76 | 5.9E-01 | AW937175.1 | EST_HUMAN | PM1-DT0041-190100-002-h03 DT0041 Homo sapiens cDNA |
| 11469 | 24528 | 38201 | 1.98 | 5.9E-01 | AF064626.1 | NT | Mus spretus strain SPRET/EI CD48 antigen (Cd48) gene, partial cds |
| 12302 | 25220 | 32101 | 1.78 | 5.9E-01 | L42320.1 | NT | Oryctolagus cuniculus alpha 1 anti-trypsin (alpha 1 AT) gene, promoter region |
| 12549 | 25372 | | 1.92 | 5.9E-01 | AB017705.1 | NT | Aspergillus oryzae pyrG gene for orotidine-5'-phosphate decarboxylase, complete cds |
| 12799 | 25533 | | 4.82 | 5.9E-01 | P34926 | SWISSPROT | MICROTUBULE-ASSOCIATED PROTEIN 1A [CONTAINS: MAP1 LIGHT CHAIN LC2] |
| 1958 | 15101 | 28201 | 1.26 | 5.8E-01 | P40472 | SWISSPROT | SIM1 PROTEIN |
| 4092 | 17247 | 30252 | 1.11 | 5.8E-01 | BF695738.1 | EST_HUMAN | 601852474F1 NIH_MGC_56.Homo sapiens cDNA clone IMAGE:4076131 5' |
| 4637 | 17773 | 30753 | 3.59 | 5.8E-01 | AB009077.1 | NT | Vigna radiata mRNA for proton pyrophosphatase, complete cds |
| 4917 | 18047 | | 2.22 | 5.8E-01 | AF110846.1 | NT | Megaselia scalaris sex-lethal homolog (Megsxl) gene, partial cds, alternatively spliced products |
| 5490 | 18689 | | 1.02 | 5.8E-01 | AE002152.1 | NT | Ureaplasma urealyticum section 53 of 59 of the complete genome |
| 5648 | 18842 | 32123 | 0.81 | 5.8E-01 | Q10699 | SWISSPROT | POTENTIAL 5'-3' EXONUCLEASE |
| 6313 | 19485 | 32840 | 1.69 | 5.8E-01 | D78659.1 | EST_HUMAN | HUM500E06B Human placenta polyA+ (TFujiwara) Homo sapiens cDNA clone GEN-500E06 5' |
| 6442 | 19609 | 32972 | 0.58 | 5.8E-01 | D50601.1 | NT | Shigella sonnei DNA for 26 ORFs, complete cds |
| 6952 | 20265 | | 2.37 | 5.8E-01 | S65091.1 | NT | cyclic AMP-regulated phosphoprotein [rats, mRNA, 1030 nt] |
| 8071 | 21153 | | 2.87 | 5.8E-01 | H41571.1 | EST_HUMAN | yn91b03.s1 Soares adult brain N2b5HB55Y Homo sapiens cDNA clone IMAGE:175757 3' similar to gb:S78187 M-PHASE INDUCER PHOSPHATASE 2 (HUMAN); |
| 8278 | 21360 | 34878 | 0.66 | 5.8E-01 | AI280051.1 | EST_HUMAN. | qh85d10.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1853779 3' |
| 8278 | 21360 | 34879 | 0.66 | 5.8E-01 | AI280051.1 | EST_HUMAN | qh85d10.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1853779 3' |
| 8385 | 21466 | 34991 | 2.71 | 5.8E-01 | P14328 | SWISSPROT | SPORE COAT PROTEIN SP96 |
| 8385 | 21466 | 34992 | 2.71 | 5.8E-01 | P14328 | SWISSPROT | SPORE COAT PROTEIN SP96 |
| 9092 | 22171 | 35716 | 10.4 | 5.8E-01 | AJ270774.1 | NT | Homo sapiens partial TCF-4 gene for T-cell transcription factor-4, exons 6-11 |
| 9172 | 22250 | 35793 | 1.23 | 5.8E-01 | Q27368 | SWISSPROT | TRANSCRIPTION FACTOR E2F |
| 9173 | 22251 | 35794 | 0.57 | 5.8E-01 | Q20471 | SWISSPROT | PUTATIVE CASEIN KINASE I F46F2.2 IN CHROMOSOME X |
| 9795 | .22835 | | 0.79 | 5.8E-01 | BF031606.1 | EST_HUMAN | 601557774F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827298 5' |
| 11237 | 24306 | 37943 | 7.26 | 5.8E-01 | AJ243213.1 | NT | Homo sapiens partial 5-HT4 receptor gene, exons 2 to 5 |
| 11291 | 24357 | | 3.35 | 5.8E-01 | BF700092.1 | EST_HUMAN | 602127577F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4284403 5' |
| 11407 | 24468 | | 1.44 | 5.8E-01 | BF700092.1 | EST_HUMAN | 602127577F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4284403 5' |
| 3108 | 16284 | | 0.73 | 5.7E-01 | 6755253 | NT | Mus musculus plasmacytoma variant translocation 1 (Pvt1), mRNA |
| 3295 | 16469 | 29488 | 1.46 | 5.7E-01 | Q9WTJ2 | SWISSPROT | PUTATIVE TRANSCRIPTION FACTOR OVO-LIKE 1 (MOVO1) (MOVO1A) |
| 3593 | 16757 | | 2.84 | 5.7E-01 | AB033503.1 | NT | Populus euramericana peacs-2 mRNA for 1-aminocyclopropane-1-carboxylate synthase, complete cds |
| 6485 | 19652 | 33014 | 4.41 | 5.7E-01 | BF035413.1 | EST_HUMAN | 601454962F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3858590 5' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6850 | 20003 | 33412 | 0.92 | 5.7E-01 | AA194201.1 | EST_HUMAN | zr38c06.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:665674 5' |
| 7000 | 18519 | 31512 | 1.15 | 5.7E-01 | AL111440.1 | NT | Botrytis cinerea strain T4 cDNA library under conditions of nitrogen deprivation |
| 7941 | 20991 | 34501 | 1.88 | 5.7E-01 | P00373 | SWISSPROT | PYRROLINE-5-CARBOXYLATE REDUCTASE (P5CR) (P5C REDUCTASE) |
| 8157 | 21239 | | 0.55 | 5.7E-01 | AJ251835.1 | NT | Mus musculus Kcnq1, Ltrpc5, Mash2, Tapa-1, Tssc4 and Tssc6 genes, alternative transcripts |
| 10004 | 23042 | 36634 | 1.13 | 5.7E-01 | AL161532.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 32 |
| 10004 | 23042 | 36635 | 1.13 | 5.7E-01 | AL161532.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 32 |
| 10803 | 23836 | 37461 | 0.91 | 5.7E-01 | BF540962.1 | EST_HUMAN | 602067712F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4066610 5' |
| 12255 | 25192 | | 1.29 | 5.7E-01 | BE715051.1 | EST_HUMAN | MR3-HT0736-180700-003-a02 HT0736 Homo sapiens cDNA |
| 13025 | 25675 | | 1.31 | 5.7E-01 | BE959722.2 | EST_HUMAN | 601654814R1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:3839763 3' |
| 3449 | 16617 | 29635 | 1.1 | 5.6E-01 | AB018283.2 | NT | Homo sapiens mRNA for KIAA0740 protein, partial cds |
| 3449 | 16617 | 29636 | 1.1 | 5.6E-01 | AB018283.2 | NT | Homo sapiens mRNA for KIAA0740 protein, partial cds |
| 3989 | 17146 | 30152 | 0.59 | 5.6E-01 | AL161501.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 13 |
| 4354 | 17497 | 30476 | 0.77 | 5.6E-01 | D83135.1 | NT | Chicken TBP gene, exon8, complete cds |
| 9003 | 22082 | 35625 | 4.11 | 5.6E-01 | AV684703.1 | EST_HUMAN | AV684703 GKC Homo sapiens cDNA clone GKCFSF05 5' |
| 9003 | 22082 | 35626 | 4.11 | 5.6E-01 | AV684703.1 | EST_HUMAN | AV684703 GKC Homo sapiens cDNA clone GKCFSF05 5' |
| 9575 | 22717 | 36285 | 1.13 | 5.6E-01 | AB038782.1 | NT | Homo sapiens MUC3A gene for intestinal mucin, partial cds |
| 12163 | 25123 | | 7.84 | 5.6E-01 | BE888280.1 | EST_HUMAN | 601514007F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3915457 5' |
| 12272 | 25204 | 38362 | 1.39 | 5.6E-01 | AA493535.1 | EST_HUMAN | ng75g10.s1 NCI_CGAP_Pr6 Homo sapiens cDNA clone IMAGE:940674 similar to contains element PTR7 repetitive element ; |
| 12661 | 17146 | 30152 | 2.38 | 5.6E-01 | AL161501.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 13 |
| 12690 | 25460 | | 2.66 | 5.6E-01 | P50505 | SWISSPROT | HIGH AFFINITY POTASSIUM TRANSPORTER |
| 13167 | 25758 | | 3.64 | 5.6E-01 | BF573829.1 | EST_HUMAN | 602132029F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4271334 5' |
| 1238 | 14397 | 27459 | 6.04 | 5.5E-01 | 8393912 | NT | Rattus norvegicus Propionyl Coenzyme A carboxylase, beta polypeptide (Pccb), mRNA |
| 2766 | 15881 | 28990 | 9.3 | 5.5E-01 | P03341 | SWISSPROT | GAG POLYPROTEIN [CONTAINS: INNER COAT PROTEIN P12; CORE PROTEIN P15; CORE SHELL PROTEIN P30; NUCLEOPROTEIN P10] |
| 2766 | 15881 | 28991 | 9.3 | 5.5E-01 | P03341 | SWISSPROT | GAG POLYPROTEIN [CONTAINS: INNER COAT PROTEIN P12; CORE PROTEIN P15; CORE SHELL PROTEIN P30; NUCLEOPROTEIN P10] |
| 2985 | 16161 | 29178 | 1.17 | 5.5E-01 | 5902085 | NT | Homo sapiens superkiller viralicidic activity 2 (S. cerevisiae homolog)-like (SKIV2L), mRNA |
| 3134 | 16310 | | 1.57 | 5.5E-01 | H46219.1 | EST_HUMAN | yo18a10.s1 Soares adult brain N2b5HB55Y Homo sapiens cDNA clone IMAGE:178266 3' |
| 3306 | 16480 | 29501 | 2.93 | 5.5E-01 | AF227240.1 | NT | Rabbit oral papillomavirus, complete genome |
| 3783 | 16944 | 29951 | 1.34 | 5.5E-01 | P48755 | SWISSPROT | FOS-RELATED ANTIGEN-1 |
| 5249 | 18370 | | 1 | 5.5E-01 | AF063866.1 | NT | Melanoplus sanguinipes entomopoxvirus, complete genome |
| 5269 | 18388 | 31356 | 1.01 | 5.5E-01 | U69097.1 | NT | Bos taurus MHC class II beta-chain BoLA-DIB1 gene, partial cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7405 | 20483 | 33950 | 0.59 | 5.5E-01 | AF030001.1 | NT | Mus musculus major histocompatibility locus class III region:butyrophilin-like protein gene, partial cds; Notch4, PBX2, RAGE, lysophatidic acid acyl transferase-alpha, palmitoyl-protein thioesterase 2 (PPT2), CREB-RP, and tenascin X (TNX) genes, comple> |
| 7405 | 20483 | 33951 | 0.59 | 5.5E-01 | AF030001.1 | NT | Mus musculus major histocompatibility locus class III region:butyrophilin-like protein gene, partial cds; Notch4, PBX2, RAGE, lysophatidic acid acyl transferase-alpha, palmitoyl-protein thioesterase 2 (PPT2), CREB-RP, and tenascin X (TNX) genes, comple> |
| 7439 | 20516 | | 0.74 | 5.5E-01 | AB015596.1 | NT | Carassius auratus gene for gonadotropin II beta subunit, complete cds |
| 8676 | 21756 | 35291 | 0.47 | 5.5E-01 | BE163243.1 | EST_HUMAN | QV3-HT0458-170200-090-b05 HT0458 Homo sapiens cDNA |
| 9969 | 23008 | | 0.56 | 5.5E-01 | U88415.1 | NT | Crimean-Congo hemorrhagic fever virus strain SPU 415/85 nucleoprotein gene, complete cds |
| 10588 | 23623 | 37230 | 0.83 | 5.5E-01 | T05047.1 | EST_HUMAN | EST02935 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBCQ35 |
| 11406 | 24467 | 38132 | 1.64 | 5.5E-01 | BF129507.1 | EST_HUMAN | 601811077R1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4054003 3' |
| 147 | 13372 | 26404 | 8.11 | 5.4E-01 | 7657266 | NT | Homo sapiens KIAA0929 protein Msx2 interacting nuclear target (MINT) homolog (KIAA0929), mRNA |
| 147 | 13372 | 26405 | 8.11 | 5.4E-01 | 7657266 | NT | Homo sapiens KIAA0929 protein Msx2 interacting nuclear target (MINT) homolog (KIAA0929), mRNA |
| 598 | 13788 | 26808 | 1.01 | 5.4E-01 | AF232006.1 | NT | Pseudomonas syringae pv. tomato strain DC3000 AvrE (avrE), HrpW (hrpW), and GstA (gstA) genes, complete cds; and unknown genes |
| 598 | 13788 | 26809 | 1.01 | 5.4E-01 | AF232006.1 | NT | Pseudomonas syringae pv. tomato strain DC3000 AvrE (avrE), HrpW (hrpW), and GstA (gstA) genes, complete cds; and unknown genes |
| 1300 | 14456 | 27522 | 2.21 | 5.4E-01 | AW896087.1 | EST_HUMAN | QV4-NN0040-070400-160-c04 NN0040 Homo sapiens cDNA |
| 2173 | 15308 | | 2.8 | 5.4E-01 | AE002247.2 | NT | Chlamydophila pneumoniae AR39, section 74 of 94 of the complete genome |
| 2329 | 15461 | 28594 | 2.82 | 5.4E-01 | AJ276682.1 | NT | Drosophila melanogaster mRNA for 15,15' beta carotene dioxygenase (beta-diox gene) |
| 5774 | 18966 | 32269 | 0.83 | 5.4E-01 | AW842327.1 | EST_HUMAN | PM2-CN0030-030200-003-c10 CN0030 Homo sapiens cDNA |
| 6320 | 19492 | 32850 | 0.93 | 5.4E-01 | AB025017.1 | NT | Rattus norvegicus gene for TIS11, complete cds |
| 7170 | 20303 | 33746 | 0.77 | 5.4E-01 | BE966592.2 | EST_HUMAN | 601660276R1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3906090 3' |
| 7490 | 20565 | 34035 | 1.96 | 5.4E-01 | Z21619.1 | NT | S.cerevisiae RIB3 gene encoding DBP synthase |
| 7490 | 20565 | 34036 | 1.96 | 5.4E-01 | Z21619.1 | NT | S.cerevisiae RIB3 gene encoding DBP synthase |
| 7492 | 20567 | 34039 | 1.47 | 5.4E-01 | Q64428 | SWISSPROT | MITOCHONDRIAL TRIFUNCTIONAL ENZYME ALPHA SUBUNIT PRECURSOR (TP-ALPHA) [INCLUDES: LONG-CHAIN ENOYL-COA HYDRATASE ; LONG CHAIN 3-HYDROXYACYL-COA DEHYDROGENASE ] |
| 10195 | 23232 | | 2.69 | 5.4E-01 | BF572536.1 | EST_HUMAN | 602076545F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4243690 5' |
| 11334 | 24397 | 38046 | 2.68 | 5.4E-01 | P36858 | SWISSPROT | NITRATE REDUCTASE [NADPH] (NR) |
| 11920 | 24906 | 38607 | 2.76 | 5.4E-01 | Q60675 | SWISSPROT | LAMININ ALPHA-2 CHAIN PRECURSOR (LAMININ M CHAIN) (MEROSIN HEAVY CHAIN) |
| 11920 | 24906 | 38608 | 2.76 | 5.4E-01 | Q60675 | SWISSPROT | LAMININ ALPHA-2 CHAIN PRECURSOR (LAMININ M CHAIN) (MEROSIN HEAVY CHAIN) |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 12039 | 19492 | 32850 | 1.3 | 5.4E-01 | AB025017.1 | NT | Rattus norvegicus gene for TIS11, complete cds |
| 12217 | 25168 | | 2.41 | 5.4E-01 | AI858398.1 | EST_HUMAN | wi37g04.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2427126 3' similar to gb:M13452 LAMIN A (HUMAN); |
| 529 | 13722 | 26748 | 2.12 | 5.3E-01 | AF019413.1 | NT | Homo sapiens HLA class III region containing tenascin X (tenascin-X) gene, partial cds; cytochrome P450 21-hydroxylase (CYP21B), complement component C4 (C4B) G11, helicase (SKI2W), RD, complement factor B (Bf), and complement component C2 (C2) genes,> |
| 2843 | 15957 | 29065 | 8.83 | 5.3E-01 | 4506328 | NT | Homo sapiens protein tyrosine phosphatase, receptor-type, zeta polypeptide 1 (PTPRZ1) mRNA |
| 2843 | 15957 | 29066 | 8.83 | 5.3E-01 | 4506328 | NT | Homo sapiens protein tyrosine phosphatase, receptor-type, zeta polypeptide 1 (PTPRZ1) mRNA |
| 3315 | 16488 | 29506 | 3.8 | 5.3E-01 | AF087658.1 | NT | Homo sapiens secreted C-type lectin precursor (LSLCL) gene, complete cds |
| 4327 | 17470 | | 1.2 | 5.3E-01 | U39687.1 | NT | Mycoplasma genitalium section 9 of 51 of the complete genome |
| 5574 | 18770 | 31813 | 1.55 | 5.3E-01 | AI820921.1 | EST_HUMAN | zu42h12.y5 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:740711 5' |
| 5574 | 18770 | 31814 | 1.55 | 5.3E-01 | AI820921.1 | EST_HUMAN | zu42h12.y5 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:740711 5' |
| 5671 | 18865 | 32150 | 0.95 | 5.3E-01 | AA193672.1 | EST_HUMAN | zr42g09.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:666112 5' |
| 5671 | 18865 | 32151 | 0.95 | 5.3E-01 | AA193672.1 | EST_HUMAN | zr42g09.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:666112 5' |
| 5762 | 18954 | 32257 | 2.32 | 5.3E-01 | BE645620.1 | EST_HUMAN | 7e73c12.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:3288118 3' similar to gb:J02783 PROTEIN DISULFIDE ISOMERASE PRECURSOR (HUMAN); |
| 5762 | 18954 | 32258 | 2.32 | 5.3E-01 | BE645620.1 | EST_HUMAN | 7e73c12.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:3288118 3' similar to gb:J02783 PROTEIN DISULFIDE ISOMERASE PRECURSOR (HUMAN); |
| 9105 | 22184 | | 1.59 | 5.3E-01 | L01950.2 | NT | Roridula gorgonias ribulose 1,5-bisphosphate carboxylase (rbcL) gene, partial cds; chloroplast gene for chloroplast product |
| 9156 | 22234 | 35779 | 0.76 | 5.3E-01 | BF433956.1 | EST_HUMAN | 7q71c12.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE: 3' similar to contains element MER29 repetitive element ; |
| 9156 | 22234 | 35780 | 0.76 | 5.3E-01 | BF433956.1 | EST_HUMAN | 7q71c12.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE: 3' similar to contains element MER29 repetitive element ; |
| 10416 | 23451 | 37056 | 0.65 | 5.3E-01 | AI954210.1 | EST_HUMAN | wx94b02.x1 NCI_CGAP_Mel15 Homo sapiens cDNA clone IMAGE:2551275 3' similar to SW:COXA_HUMAN P20674 CYTOCHROME C OXIDASE POLYPEPTIDE VA PRECURSOR ; |
| 11857 | 24845 | 38542 | 5.63 | 5.3E-01 | BE566291.1 | EST_HUMAN | 601339867F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3682168 5' |
| 12145 | 25958 | | 1.73 | 5.3E-01 | AA916053.1 | EST_HUMAN | og30e05.s1 NCI_CGAP_Br7 Homo sapiens cDNA clone IMAGE:1441376 3' similar to gb:J02611 APOLIPOPROTEIN D PRECURSOR (HUMAN); |
| 839 | 14017 | 27072 | 20.65 | 5.2E-01 | L20770.1 | NT | Drosophila melanogaster helix-loop-helix mRNA, complete cds |
| 1190 | 14352 | 27410 | 7.57 | 5.2E-01 | Q9WV30 | SWISSPROT | NUCLEAR FACTOR OF ACTIVATED T CELLS 5 (T CELL TRANSCRIPTION FACTOR NFAT5) (NF-AT5) (REL DOMAIN-CONTAINING TRANSCRIPTION FACTOR NFAT5) |
| 1218 | 14379 | 27438 | 3.05 | 5.2E-01 | AF224492.1 | NT | Homo sapiens phospholipid scramblase 1 gene, complete cds |
| 1935 | 15078 | | 3.88 | 5.2E-01 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2213 | 15347 | 28476 | 2.86 | 5.2E-01 | AB018283.2 | NT | Homo sapiens mRNA for KIAA0740 protein, partial cds |
| 3189 | 16364 | 29369 | 2.1 | 5.2E-01 | U65942.1 | NT | Chlamydophila abortus strain S26/3 POMP91A and POMP90A precursor, genes, complete cds |
| 3309 | 16483 | | 1.05 | 5.2E-01 | D73443.1 | NT | Azotobacter vinelandii icd gene for isocitrate dehydrogenase, complete cds |
| 3491 | 16658 | | 1.61 | 5.2E-01 | AL116780.1 | NT | Botrytis cinerea strain T4 cDNA library under conditions of nitrogen deprivation |
| 3630 | 16695 | 29706 | 2.01 | 5.2E-01 | AA984165.1 | EST_HUMAN | am77g05.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:1616504 3' |
| 3722 | 16883 | | 0.77 | 5.2E-01 | AF020269.1 | NT | Medicago sativa chloroplast malate dehydrogenase precursor (p1mdh) mRNA, nuclear gene encoding chloroplast protein, complete cds |
| 3724 | 16885 | 29891 | 0.87 | 5.2E-01 | U82671.2 | NT | Homo sapiens chromosome Xq28 melanoma antigen family A2a (MAGEA2A), melanoma antigen family A12 (MAGEA12), melanoma antigen family A2b (MAGEA2B), melanoma antigen family A3 (MAGEA3), caltractin (CALT), NAD(P)H dehydrogenase-like protein (NSDHL), and LI> |
| 4729 | 17864 | 30846 | 0.61 | 5.2E-01 | 6752947 | NT | Mus musculus acetylcholine receptor beta (Acrb), mRNA |
| 5770 | 18962 | 32263 | 0.92 | 5.2E-01 | AA284261.1 | EST_HUMAN | zc44d09.T7 Soares_senescent_fibroblasts_NbHSF Homo sapiens cDNA clone IMAGE:325169 3' |
| 9932 | 25862 | 36562 | 0.87 | 5.2E-01 | X02218.1 | NT | Chicken duplicated genes for histone H2A, H4 and a histone H3 gene |
| 9932 | 25862 | 36563 | 0.87 | 5.2E-01 | X02218.1 | NT | Chicken duplicated genes for histone H2A, H4 and a histone H3 gene |
| 10136 | 23174 | 36772 | 0.49 | 5.2E-01 | AA194518.1 | EST_HUMAN | zq05b09.r1 Stratagene muscle 937209 Homo sapiens cDNA clone IMAGE:628793 5' |
| 10233 | 23268 | 36858 | 1.32 | 5.2E-01 | AF143952.2 | NT | Homo sapiens PELOTA (PELOTA) gene, complete cds |
| 13128 | 25736 | | 4.83 | 5.2E-01 | P18516 | SWISSPROT | RETINOIC ACID RECEPTOR GAMMA (RAR-GAMMA) (RETINOIC ACID RECEPTOR DELTA) (RAR-DELTA) |
| 632 | 13817 | 26841 | 2.5 | 5.1E-01 | M58509.1 | NT | Human adrenodoxin reductase gene, exons 3 to 12 |
| 665 | 13851 | 26878 | 4.57 | 5.1E-01 | AJ233944.1 | NT | Polyangium vitellinum (strain Pl vt1) 16S rRNA gene |
| 665 | 13851 | 26879 | 4.57 | 5.1E-01 | AJ233944.1 | NT | Polyangium vitellinum (strain Pl vt1) 16S rRNA gene |
| 1684 | 14836 | | 1.02 | 5.1E-01 | X87885.1 | NT | R.norvegicus mRNA for mammalian fusca protein |
| 4188 | 17338 | 30331 | 3.87 | 5.1E-01 | AI858495.1 | EST_HUMAN | wl39b12.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2427263 3' |
| 4303 | 17446 | 30432 | 2.89 | 5.1E-01 | P96380 | SWISSPROT | TRANSCRIPTION-REPAIR COUPLING FACTOR (TRCF) |
| 5179 | 18301 | | 0.6 | 5.1E-01 | BE091796.1 | EST_HUMAN | IL2-BT0731-250400-077-G08 BT0731 Homo sapiens cDNA |
| 6352 | 19522 | 32879 | 1 | 5.1E-01 | BE541068.1 | EST_HUMAN | 601063606F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3450000 5' |
| 6406 | 19575 | | 0.9 | 5.1E-01 | AV712326.1 | EST_HUMAN | AV712326 DCA Homo sapiens cDNA clone DCAAUF07 5' |
| 7057 | 20110 | 33526 | 1.36 | 5.1E-01 | R80873.1 | EST_HUMAN | yi94a09.s1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:146872 3' |
| 8770 | 21849 | 35389 | 0.84 | 5.1E-01 | AW806881.1 | EST_HUMAN | QV4-ST0023-160400-172-a01 ST0023 Homo sapiens cDNA |
| 8770 | 21849 | 35390 | 0.84 | 5.1E-01 | AW806881.1 | EST_HUMAN | QV4-ST0023-160400-172-a01 ST0023 Homo sapiens cDNA |
| 9886 | 22926 | 36510 | 4.65 | 5.1E-01 | J05412.1 | NT | Human regenerating protein (reg) gene, complete cds |
| 9889 | 22929 | 36513 | 3.95 | 5.1E-01 | W22302.1 | EST_HUMAN | 65B1 Human retina cDNA Tsp509I-cleaved sublibrary Homo sapiens cDNA not directional |
| 10363 | 23398 | 37009 | 0.99 | 5.1E-01 | M94579.1 | NT | Human carboxyl ester lipase (CEL) gene, complete cds |
| 12368 | 25874 | | 3.49 | 5.1E-01 | BF030207.1 | EST_HUMAN | 601556863F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3826767 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 12634 | 25427 | | 1.31 | 5.1E-01 | BF439982.1 | EST_HUMAN | nac51f10.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:3406218 3' similar to contains element TAR1 repetitive element ; |
| 2203 | 15338 | 28464 | 1.65 | 5.0E-01 | 4885552 | NT | Homo sapiens postmeiotic segregation increased 2-like 9 (PMS2L9), mRNA |
| 2203 | 15338 | 28465 | 1.65 | 5.0E-01 | 4885552 | NT | Homo sapiens postmeiotic segregation increased 2-like 9 (PMS2L9), mRNA |
| 2211 | 15345 | 28472 | 2.09 | 5.0E-01 | AF008210.1 | NT | Buchnera aphidicola genomic fragment containing (chaperone Hsp60) groEL, DNA biosynthesis initiating protein (dnaA), ATP operon (atpCDGAHFEB), and putative chromosome replication protein (gidA) genes, complete cds; and termination factor Rho (rho) gene> |
| 2211 | 15345 | 28473 | 2.09 | 5.0E-01 | AF008210.1 | NT | Buchnera aphidicola genomic fragment containing (chaperone Hsp60) groEL, DNA biosynthesis initiating protein (dnaA), ATP operon (atpCDGAHFEB), and putative chromosome replication protein (gidA) genes, complete cds; and termination factor Rho (rho) gene> |
| 2231 | 15365 | | 1.56 | 5.0E-01 | AL161533.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 33 |
| 3842 | 17001 | 30004 | 0.86 | 5.0E-01 | U55574.1 | NT | Mus musculus anti-DNA immunoglobulin light chain IgM mRNA, antibody 363p.138, partial cds |
| 3934 | 17093 | 30091 | 0.93 | 5.0E-01 | L38483.1 | NT | Rattus norvegicus jagged protein mRNA, complete cds |
| 3977 | 17134 | 30137 | 2.67 | 5.0E-01 | AB033010.1 | NT | Homo sapiens mRNA for KIAA1184 protein, partial cds |
| 6782 | 19937 | | 0.82 | 5.0E-01 | BF576199.1 | EST_HUMAN | 602132642F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4271939 5' |
| 7842 | 20897 | 34398 | 0.84 | 5.0E-01 | AL161549.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 49 |
| 7842 | 20897 | 34399 | 0.84 | 5.0E-01 | AL161549.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 49 |
| 8727 | 21807 | | 1.63 | 5.0E-01 | M92304.1 | NT | Xenopus laevis smooth muscle beta-tropomyosin mRNA, complete cds |
| 8870 | 21949 | 35484 | 0.66 | 5.0E-01 | BF107848.1 | EST_HUMAN | 601823850R1 NIH_MGC_79 Homo sapiens cDNA clone IMAGE:4043485 3' |
| 9657 | 21100 | 34613 | 2.13 | 5.0E-01 | BF317212.1 | EST_HUMAN | 601903871F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4136632 5' |
| 9824 | 22864 | 36445 | 1.47 | 5.0E-01 | P35573 | SWISSPROT | GLYCOGEN DEBRANCHING ENZYME (GLYCOGEN DEBRANCHER) [INCLUDES: 4-ALPHA-GLUCANOTRANSFERASE (OLIGO-1,4-1,4-GLUCANTRANSFERASE); AMYLO-1,6-GLUCOSIDASE (DEXTRIN 6-ALPHA-D-GLUCOSIDASE)] |
| 9824 | 22864 | 36446 | 1.47 | 5.0E-01 | P35573 | SWISSPROT | GLYCOGEN DEBRANCHING ENZYME (GLYCOGEN DEBRANCHER) [INCLUDES: 4-ALPHA-GLUCANOTRANSFERASE (OLIGO-1,4-1,4-GLUCANTRANSFERASE); AMYLO-1,6-GLUCOSIDASE (DEXTRIN 6-ALPHA-D-GLUCOSIDASE)] |
| 10602 | 23637 | | 1.23 | 5.0E-01 | BE869218.1 | EST_HUMAN | 601445024F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3849436 5' |
| 12307 | 25225 | | 3.64 | 5.0E-01 | AF029215.1 | NT | Mus musculus MRC OX-2 antigen homolog gene, exons 2-5, and complete cds |
| 13093 | 25713 | | 2.25 | 5.0E-01 | AL163302.2 | NT | Homo sapiens chromosome 21 segment HS21C102 |
| 13109 | 25724 | | 4.71 | 5.0E-01 | O13961 | SWISSPROT | NUCLEAR ENVELOPE PROTEIN CUT11 |
| 812 | 13991 | 27045 | 1.83 | 4.9E-01 | BF571462.1 | EST_HUMAN | 602076649F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4243860 5' |
| 1692 | 14844 | 27928 | 1.08 | 4.9E-01 | AJ243955.1 | NT | Xenopus laevis mRNA for c-Jun protein, 1976 BP |
| 1955 | 15098 | 28198 | 1.34 | 4.9E-01 | U40869.1 | NT | Cavia porcellus pulmonary surfactant protein A (SP-a) mRNA, complete cds |
| 5522 | 18719 | 31735 | 1.17 | 4.9E-01 | Q61554 | SWISSPROT | FIBRILLIN 1 PRECURSOR |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6161 | 19337 | 32682 | 2.67 | 4.9E-01 | AF020931.1 | NT | Homo sapiens diacylglycerol kinase 3 (DAGK3) gene, exon 10 |
| 6161 | 19337 | 32683 | 2.67 | 4.9E-01 | AF020931.1 | NT | Homo sapiens diacylglycerol kinase 3 (DAGK3) gene, exon 10 |
| 7610 | 20680 | 34156 | 1.61 | 4.9E-01 | AB040051.1 | NT | Oryza sativa subsp. japonica mEF-G mRNA for mitochondrial elongation factor G, complete cds |
| 7882 | 20934 | 34439 | 0.86 | 4.9E-01 | Q10606 | SWISSPROT | PUTATIVE UNDECAPRENYL-PHOSPHATE ALPHA-N-ACETYLGLUCOSAMINYLTRANSFERASE |
| 7882 | 20934 | 34440 | 0.86 | 4.9E-01 | Q10606 | SWISSPROT | PUTATIVE UNDECAPRENYL-PHOSPHATE ALPHA-N-ACETYLGLUCOSAMINYLTRANSFERASE |
| 9190 | 22268 | | 1.96 | 4.9E-01 | BF209791.1 | EST_HUMAN | 601874964F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4102503 5' |
| 9389 | 22464 | 36028 | 0.96 | 4.9E-01 | AW339905.1 | EST_HUMAN | hc90c02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2907266 3' similar to TR:O95714 O95714 HERC2. ; |
| 9496 | 26228 | | 2.2 | 4.9E-01 | 10946863 | NT | Mus musculus unc13 homolog (C. elegans) 1 (Unc13h1), mRNA |
| 10624 | 23559 | 37166 | 1.05 | 4.9E-01 | AF053980.1 | NT | Mus musculus adenylyl cyclase 1 (Adcy1) cDNA, partial cds |
| 12197 | 25154 | | 2.61 | 4.9E-01 | AF176912.1 | NT | Homo sapiens neurotrophin-1/B-cell stimulating factor-3 gene, complete cds |
| 13085 | 26174 | | 4.94 | 4.9E-01 | AA613562.1 | EST_HUMAN | nq22e11.s1 NCI_CGAP_Co10 Homo sapiens cDNA clone IMAGE:1144652 3' |
| 13094 | 25714 | 31939 | 1.69 | 4.9E-01 | AL163301.2 | NT | Homo sapiens chromosome 21 segment HS21C101 |
| 13181 | 25768 | | 1.27 | 4.9E-01 | 11431436 | NT | Homo sapiens eukaryotic translation initiation factor 4 gamma, 1 (EIF4G1), mRNA |
| 4452 | 17592 | | 0.59 | 4.8E-01 | 4504850 | NT | Homo sapiens potassium channel, subfamily K, member 5 (TASK-2) (KCNK5) mRNA, and translated products |
| 5624 | 18818 | 31892 | 9.66 | 4.8E-01 | J02987.1 | NT | Saccharomyces cerevisiae) sporulation protein (SPO11) gene required for meiotic recombination, complete cds |
| 6817 | 19970 | 33378 | 0.69 | 4.8E-01 | U92882.1 | NT | Mus musculus slow skeletal muscle troponin T (Tnnt1) gene, complete cds |
| 6827 | 19980 | | 4.18 | 4.8E-01 | AA659878.1 | EST_HUMAN | nu85f09.s1 NCI_CGAP_Alv1 Homo sapiens cDNA clone IMAGE:1217513 |
| 7469 | 20544 | | 1.83 | 4.8E-01 | 5031650 | NT | Homo sapiens reproduction 8 (D8S2298E) mRNA |
| 7845 | 20900 | 34403 | 1.06 | 4.8E-01 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 7938 | 20988 | 34497 | 3.59 | 4.8E-01 | AL161492.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 4 |
| 7938 | 20988 | 34498 | 3.59 | 4.8E-01 | AL161492.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 4 |
| 8089 | 21171 | 34686 | 1.81 | 4.8E-01 | AI820744.1 | EST_HUMAN | yj77f10.y5 Soares breast 2NbHBst Homo sapiens cDNA clone IMAGE:154795 5' similar to contains element MER6 repetitive element ; |
| 9446 | 22562 | | 1.05 | 4.8E-01 | BE155148.1 | EST_HUMAN | PM1-HT0350-201299-004-b04 HT0350 Homo sapiens cDNA |
| 10212 | 23248 | | 0.55 | 4.8E-01 | BF568633.1 | EST_HUMAN | 602184267F1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300048 5' |
| 10966 | 24047 | | 1.9 | 4.8E-01 | X83502.1 | NT | S.cerevisiae ORFs from chromosome X |
| 12279 | 25208 | | 1.56 | 4.8E-01 | AL163227.2 | NT | Homo sapiens chromosome 21 segment HS21C027 |
| 12509 | 25918 | | 5.78 | 4.8E-01 | AF227565.1 | NT | Trypanosoma cruzi transposon VIP II SIRE repeat region |
| 3142 | 16318 | | 0.59 | 4.7E-01 | AF192387.1 | NT | Felis catus feline leukemia virus subgroup C receptor (FLVCR1) mRNA, complete cds |
| 6644 | 19803 | 33190 | 8.07 | 4.7E-01 | BF217173.1 | EST_HUMAN | 601883880F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4096387 5' |
| 7186 | 20051 | 33461 | 0.84 | 4.7E-01 | AI204374.1 | EST_HUMAN | qf72a09.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1755544 3' |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8049 | 21132 | 34652 | 0.75 | 4.7E-01 | T11414.1 | EST_HUMAN | hbc811 Human pancreatic islet Homo sapiens cDNA clone hbc811 5'end |
| 8049 | 21132 | 34653 | 0.75 | 4.7E-01 | T11414.1 | EST_HUMAN | hbc811 Human pancreatic islet Homo sapiens cDNA clone hbc811 5'end |
| 9276 | 22352 | 35904 | 0.61 | 4.7E-01 | 6981501 | NT | Rattus norvegious Spermine binding protein (Sbp), mRNA |
| 11084 | 24158 | | 4.37 | 4.7E-01 | AF102673.1 | NT | Influenza A virus isolate hk51697 hemagglutinin (HA) gene, partial cds |
| 11340 | 24403 | 38052 | 1.94 | 4.7E-01 | U41069.1 | NT | Human collagen alpha2(XI) (COL11A2) gene, exons 6 through 16, and partial cds |
| 11658 | 24737 | 38428 | 1.45 | 4.7E-01 | AW889448.1 | EST_HUMAN | RC6-NT0029-240400-011-E08 NT0029 Homo sapiens cDNA |
| 12401 | 25281 | | 1.84 | 4.7E-01 | BE887763.1 | EST_HUMAN | 601511333F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912488 5' |
| 12529 | 25361 | | 1.25 | 4.7E-01 | AW341561.1 | EST_HUMAN | hd11c08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2909198 3' |
| 3837 | 16997 | 29999 | 1.62 | 4.6E-01 | BF693300.1 | EST_HUMAN | 602081103F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4245481 5' |
| 3837 | 16997 | 30000 | 1.62 | 4.6E-01 | BF693300.1 | EST_HUMAN | 602081103F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4245481 5' |
| 5535 | 18732 | 31747 | 0.93 | 4.6E-01 | BF313593.1 | EST_HUMAN | 601900234F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4129472 5' |
| 5535 | 18732 | 31748 | 0.93 | 4.6E-01 | BF313593.1 | EST_HUMAN | 601900234F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4129472 5' |
| 5588 | 18783 | 31828 | 3.52 | 4.6E-01 | Q90643 | SWISSPROT | INTERFERON REGULATORY FACTOR 3 (IRF-3) |
| 5588 | 18783 | 31829 | 3.52 | 4.6E-01 | Q90643 | SWISSPROT | INTERFERON REGULATORY FACTOR 3 (IRF-3) |
| 5663 | 18857 | 32140 | 1.84 | 4.6E-01 | BE734781.1 | EST_HUMAN | 601568755F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3843637 5' |
| 5677 | 18871 | 32157 | 3.62 | 4.6E-01 | AI247679.1 | EST_HUMAN | qh59h02.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1849011 3' similar to TR:O15338 O15338 BUTYROPHILIN. ; |
| 5677 | 18871 | 32158 | 3.62 | 4.6E-01 | AI247679.1 | EST_HUMAN | qh59h02.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1849011 3' similar to TR:O15338 O15338 BUTYROPHILIN. ; |
| 5685 | 18879 | 32169 | 1.44 | 4.6E-01 | P20050 | SWISSPROT | MEIOSIS SPECIFIC PROTEIN HOP1 |
| 5763 | 18955 | | 0.85 | 4.6E-01 | AF212124.1 | NT | Anolis schwartzi cytochrome b gene, partial cds; mitochondrial gene for mitochondrial product |
| 5850 | 19040 | | 0.9 | 4.6E-01 | BE817247.1 | EST_HUMAN | PM0-BN0260-120600-001-F07 BN0260 Homo sapiens cDNA |
| 6386 | 19555 | 32914 | 0.82 | 4.6E-01 | AE000894.1 | NT | Methanobacterium thermoautotrophicum from bases 1165751 to 1176238 (section 100 of 148) of the complete genome |
| 6906 | 20221 | 33649 | 2.39 | 4.6E-01 | U62332.1 | NT | Emericella nidulans NEMPA (nempA) gene, mitochondrial gene encoding putative mitochondrial protein, complete cds |
| 6906 | 20221 | 33650 | 2.39 | 4.6E-01 | U62332.1 | NT | Emericella nidulans NEMPA (nempA) gene, mitochondrial gene encoding putative mitochondrial protein, complete cds |
| 7378 | 25843 | 33920 | 0.66 | 4.6E-01 | L07320.1 | NT | Murine cytomegalovirus e1 protein gene, complete cds |
| 7906 | 20958 | 34464 | 0.78 | 4.6E-01 | AA493577.1 | EST_HUMAN | nh04h05.s1 NCI_CGAP_Thy1 Homo sapiens cDNA clone IMAGE:943353 similar to contains Alu repetitive element;contains element L1 repetitive element ; |
| 8515 | 21596 | 35131 | 14.55 | 4.6E-01 | BF697399.1 | EST_HUMAN | 602130953F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4287828 5' |
| 8946 | 22025 | 35565 | 0.54 | 4.6E-01 | AA932237.1 | EST_HUMAN | oo76b08.s1 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1572087 3' similar to gb:M36341 ADP-RIBOSYLATION FACTOR 4 (HUMAN); |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8946 | 22025 | 35566 | 0.54 | 4.6E-01 | AA932237.1 | EST_HUMAN | oo76b08.s1 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1572087 3' similar to gb:M36341 ADP-RIBOSYLATION FACTOR 4 (HUMAN); |
| 9501 | 22557 | 36120 | 0.93 | 4.6E-01 | P55202 | SWISSPROT | ATRIAL NATRIURETIC PEPTIDE RECEPTOR B PRECURSOR (ANP-B) (ANPRB) (GC-B) (GUANYLATE CYCLASE) |
| 9501 | 22557 | 36121 | 0.93 | 4.6E-01 | P55202 | SWISSPROT | ATRIAL NATRIURETIC PEPTIDE RECEPTOR B PRECURSOR (ANP-B) (ANPRB) (GC-B) (GUANYLATE CYCLASE) |
| 9866 | 22906 | 36490 | 0.52 | 4.6E-01 | AF162283.1 | NT | Glycine max acetyl-CoA carboxylase (accB-1) gene, complete cds; nuclear gene for chloroplast product |
| 9866 | 22906 | 36491 | 0.52 | 4.6E-01 | AF162283.1 | NT | Glycine max acetyl-CoA carboxylase (accB-1) gene, complete cds; nuclear gene for chloroplast product |
| 10181 | 23218 | 36809 | 1.15 | 4.6E-01 | AI915634.1 | EST_HUMAN | wg73e12.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2370766 3' |
| 10181 | 23218 | 36810 | 1.15 | 4.6E-01 | AI915634.1 | EST_HUMAN | wg73e12.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2370766 3' |
| 11238 | 24307 |  | 2.31 | 4.6E-01 | P98163 | SWISSPROT | PUTATIVE VITELLOGENIN RECEPTOR PRECURSOR (YL) |
| 11248 | 24317 | 37956 | 5.06 | 4.6E-01 | BE185449.1 | EST_HUMAN | IL5-HT0730-100500-075-g05 HT0730 Homo sapiens cDNA |
| 11248 | 24317 | 37957 | 5.06 | 4.6E-01 | BE185449.1 | EST_HUMAN | IL5-HT0730-100500-075-g05 HT0730 Homo sapiens cDNA |
| 11760 | 23946 | 37573 | 4.3 | 4.6E-01 | AF019369.1 | NT | Human thiopurine methyltransferase (TPMT) gene, exon 10 and complete cds |
| 11760 | 23946 | 37574 | 4.3 | 4.6E-01 | AF019369.1 | NT | Human thiopurine methyltransferase (TPMT) gene, exon 10 and complete cds |
| 1960 | 16103 | 28203 | 1.15 | 4.5E-01 | AE001931.1 | NT | Deinococcus radiodurans R1 section 68 of 229 of the complete chromosome 1 |
| 1960 | 15103 | 28204 | 1.15 | 4.5E-01 | AE001931.1 | NT | Deinococcus radiodurans R1 section 68 of 229 of the complete chromosome 1 |
| 2933 | 16110 | 29124 | 4.83 | 4.5E-01 | AA677086.1 | EST_HUMAN | zj55d02.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:454179 3' |
| 3380 | 16552 | 29565 | 0.66 | 4.6E-01 | AW083761.1 | EST_HUMAN | xc25c06.x1 NCI_CGAP_Co19 Homo sapiens cDNA clone IMAGE:2585290 3' similar to gb:L07807 DYNAMIN-1 (HUMAN); |
| 3380 | 16552 | 29566 | 0.66 | 4.5E-01 | AW083761.1 | EST_HUMAN | xc25c06.x1 NCI_CGAP_Co19 Homo sapiens cDNA clone IMAGE:2585290 3' similar to gb:L07807 DYNAMIN-1 (HUMAN); |
| 3393 | 16563 | 29578 | 4.46 | 4.5E-01 | Q05793 | SWISSPROT | BASEMENT MEMBRANE-SPECIFIC HEPARAN SULFATE PROTEOGLYCAN CORE PROTEIN PRECURSOR (HSPG) (PERLECAN) (PLC) |
| 3465 | 16632 | 29651 | 1.61 | 4.5E-01 | AF126378.1 | NT | Mus musculus DNA polymerase epsilon catalytic subunit (Pole) gene, exons 2 through 12 |
| 4139 | 17291 |  | 1.18 | 4.5E-01 | Q28247 | SWISSPROT | COLLAGEN ALPHA 5(IV) CHAIN |
| 4186 | 17336 | 30329 | 1.02 | 4.5E-01 | AI708908.1 | EST_HUMAN | as96e09.x1 Barstead aorta HPLRB6 Homo sapiens cDNA clone IMAGE:2353480 3' |
| 4292 | 18478 |  | 4.71 | 4.5E-01 | AW873495.1 | EST_HUMAN | ho60g02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:3041810 3' |
| 5058 | 18186 | 31161 | 1.18 | 4.5E-01 | BE963445.2 | EST_HUMAN | 601657225R1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3866023 3' |
| 5666 | 18860 | 32145 | 1.57 | 4.5E-01 | AW608814.1 | EST_HUMAN | QV2-PT0012-140100-031-c09 PT0012 Homo sapiens cDNA |
| 6740 | 19896 |  | 1.38 | 4.5E-01 | Q00956 | SWISSPROT | COAT PROTEIN |
| 7571 | 20643 | 34120 | 0.91 | 4.5E-01 | M37036.1 | NT | Rat nucleolar proteins B23.1 and B23.2 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7785 | 20841 | 34333 | 2.39 | 4.5E-01 | AI858849.1 | EST_HUMAN | wl32e02.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2426618 3' similar to TR:Q92923 Q92923 SWI/SNF COMPLEX 170 KDA SUBUNIT. ; |
| 8502 | 21583 | | 1.11 | 4.5E-01 | M32661.1 | NT | D.melanogaster Shaw2 protein mRNA, complete cds |
| 8598 | 21679 | 35217 | 2.87 | 4.5E-01 | AI648596.1 | EST_HUMAN | tz56g11.x1 NCI_CGAP_Ov35 Homo sapiens cDNA clone IMAGE:2292644 3' |
| 8756 | 21835 | 35376 | 0.85 | 4.5E-01 | Q52728 | SWISSPROT | POLY-BETA-HYDROXYBUTYRATE POLYMERASE (POLY(3-HYDROXYBUTYRATE) POLYMERASE) (PHB POLYMERASE) (PHB SYNTHASE) (POLY(3-HYDROXYALKANOATE) POLYMERASE) (PHA POLYMERASE) (PHA SYNTHASE) (POLYHYDROXYALKANOIC ACID SYNTHASE) |
| 8981 | 22060 | | 2.36 | 4.5E-01 | 11444786 | NT | Homo sapiens hypothetical protein DKFZp547G183 (DKFZp547G183), mRNA |
| 9200 | 22278 | 35817 | 0.86 | 4.5E-01 | AE000218.1 | NT | Escherichia coli K-12 MG1655 section 108 of 400 of the complete genome |
| 10145 | 23183 | | 0.96 | 4.5E-01 | 9630816 | NT | Bombyx mori nuclear polyhedrosis virus, complete genome |
| 10713 | 23746 | 37352 | 25.59 | 4.5E-01 | M86006.1 | EST_HUMAN | EST02531 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBCY17 |
| 10713 | 23746 | 37353 | 25.59 | 4.5E-01 | M86006.1 | EST_HUMAN | EST02531 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBCY17 |
| 11104 | 24176 | 37812 | 2.52 | 4.5E-01 | AW591271.1 | EST_HUMAN | xo14h01.x1 NCI_CGAP_Ut3 Homo sapiens cDNA clone IMAGE:2703985 3' similar to SW:INT6_MOUSE Q64252 VIRAL INTEGRATION SITE PROTEIN INT-6. [1] ; |
| 11226 | 24294 | 37935 | 2.16 | 4.5E-01 | 11430799 | NT | Homo sapiens cadherin 3, P-cadherin (placental) (CDH3), mRNA |
| 11530 | 24586 | | 1.3 | 4.5E-01 | AV719382.1 | EST_HUMAN | AV719382 GLC Homo sapiens cDNA clone GLCCED12 5' |
| 12164 | 26162 | | 5.58 | 4.5E-01 | BE871461.1 | EST_HUMAN | 601449201F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3852961 5' |
| 12895 | 25592 | | 1.2 | 4.5E-01 | BF337531.1 | EST_HUMAN | 602035275F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4183290 5' |
| 12970 | 26630 | | 12.42 | 4.5E-01 | 11422099 | NT | Homo sapiens testis-specific kinase 2 (TESK2), mRNA |
| 2094 | 15234 | | 1.11 | 4.4E-01 | 6680503 | NT | Mus musculus integral membrane-associated protein 1 (Itmap1), mRNA |
| 2462 | 15589 | 28715 | 4.16 | 4.4E-01 | P49765 | SWISSPROT | VASCULAR ENDOTHELIAL GROWTH FACTOR B PRECURSOR (VEGF-B) (VEGF RELATED FACTOR) |
| 3390 | 16560 | 29575 | 1.54 | 4.4E-01 | AF058790.1 | NT | Rattus norvegicus SynGAP-b mRNA, complete cds |
| 3390 | 16560 | 29576 | 1.54 | 4.4E-01 | AF058790.1 | NT | Rattus norvegicus SynGAP-b mRNA, complete cds |
| 3395 | 16565 | 29580 | 2.12 | 4.4E-01 | BF056726.1 | EST_HUMAN | 7j91d02.y1 NCI_CGAP_Br16 Homo sapiens cDNA clone IMAGE:3393795 5' |
| 4349 | 17492 | | 1.35 | 4.4E-01 | BE378707.1 | EST_HUMAN | 601237139F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3609393 5' |
| 5536 | 18733 | 31749 | 1.31 | 4.4E-01 | P04929 | SWISSPROT | HISTIDINE-RICH GLYCOPROTEIN PRECURSOR |
| 5536 | 18733 | 31750 | 1.31 | 4.4E-01 | P04929 | SWISSPROT | HISTIDINE-RICH GLYCOPROTEIN PRECURSOR |
| 5805 | 18995 | 32300 | 1.58 | 4.4E-01 | S65019.1 | NT | mucin [rats, Sprague-Dawley, sulfur-dioxide-treated tracheal epithelium, mRNA Partial, 390 nt] |
| 5823 | 19013 | 32319 | 1.81 | 4.4E-01 | AV720408.1 | EST_HUMAN | AV720408 GLC Homo sapiens cDNA clone GLCCSC12 5' |
| 6074 | 19256 | 32584 | 1.12 | 4.4E-01 | AI198413.1 | EST_HUMAN | ql62h11.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:1861125 3' similar to TR:Q29168 Q29168 UNKNOWN PROTEIN ; |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6074 | 19256 | 32585 | 1.12 | 4.4E-01 | AI198413.1 | EST_HUMAN | qi62h11.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:1861125 3' similar to TR:Q29168 Q29168 UNKNOWN PROTEIN ; |
| 6370 | 19539 | 32899 | 1.67 | 4.4E-01 | AW080795.1 | EST_HUMAN | xo27e08.x1 NCI_CGAP_Co18 Homo sapiens cDNA clone IMAGE:2585510 3' similar to TR:O95154 O95154 AFLATOXIN B1-ALDEHYDE REDUCTASE. ; |
| 6458 | 19625 | | 1.05 | 4.4E-01 | AA776132.1 | EST_HUMAN | ae85d11.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:970965 3' similar to gb:M16038 TYROSINE-PROTEIN KINASE LYN (HUMAN); |
| 7567 | 20629 | 34104 | 1.14 | 4.4E-01 | AE000571.1 | NT | Helicobacter pylori 26695 section 49 of 134 of the complete genome |
| 8024 | 21107 | | 12.3 | 4.4E-01 | Z11679.1 | NT | S.tuberosum mRNA for induced stolon tip protein (partial) |
| 8962 | 22041 | 35584 | 1.11 | 4.4E-01 | AA056427.1 | EST_HUMAN | zl69a03.s1 Stratagene colon (#937204) Homo sapiens cDNA clone IMAGE:509836 3' |
| 9352 | 22427 | 35985 | 0.78 | 4.4E-01 | AF112540.1 | NT | HIV-1 isolate 08107v6 from USA, envelope glycoprotein (env) gene, partial cds |
| 9385 | 22460 | 36023 | 0.62 | 4.4E-01 | AW612578.1 | EST_HUMAN | hh05c08.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2954222 3' similar to SW:MSH6_HUMAN P52701 DNA MISMATCH REPAIR PROTEIN MSH6 ; |
| 9490 | 22547 | 36110 | 1.13 | 4.4E-01 | O62836 | SWISSPROT | ZINC FINGER X-CHROMOSOMAL PROTEIN |
| 10167 | 23204 | 36798 | 1.95 | 4.4E-01 | AI268650.1 | EST_HUMAN | qo39f09.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1910921 3' |
| 10168 | 23205 | | 2.09 | 4.4E-01 | P28922 | SWISSPROT | GLYCOPROTEIN B PRECURSOR (GLYCOPROTEIN 14) |
| 10302 | 23337 | 36942 | 4.94 | 4.4E-01 | P35590 | SWISSPROT | TYROSINE-PROTEIN KINASE RECEPTOR TIE-1 PRECURSOR |
| 10585 | 23620 | 37226 | 1.76 | 4.4E-01 | S76404.1 | NT | beta -HKA=H,K-ATPase beta-subunit [rats, Genomic, 8983 nt, segment 2 of 2] |
| 10585 | 23620 | 37227 | 1.76 | 4.4E-01 | S76404.1 | NT | beta -HKA=H,K-ATPase beta-subunit [rats, Genomic, 8983 nt, segment 2 of 2] |
| 10829 | 23862 | 37486 | 0.46 | 4.4E-01 | P02716 | SWISSPROT | ACETYLCHOLINE RECEPTOR PROTEIN, DELTA CHAIN PRECURSOR |
| 11522 | 24578 | 38256 | 1.64 | 4.4E-01 | 6691408 | NT | Terebratulina retusa mitochondrion, complete genome |
| 12435 | 25308 | 32087 | 4.23 | 4.4E-01 | 6677874 | NT | Mus musculus sodium channel, type X, alpha polypeptide (Scn10a), mRNA |
| 12447 | 26084 | | 13.47 | 4.4E-01 | AL163282.2 | NT | Homo sapiens chromosome 21 segment HS21C082 |
| 13051 | 25689 | | 1.41 | 4.4E-01 | P54725 | SWISSPROT | UV EXCISION REPAIR PROTEIN PROTEIN RAD23 HOMOLOG A (HHR23A) |
| 424 | 13619 | 26659 | 2.42 | 4.3E-01 | AF155218.1 | NT | Callithrix jacchus MW/LW opsin gene, upstream flanking region |
| 424 | 13619 | 26660 | 2.42 | 4.3E-01 | AF155218.1 | NT | Callithrix jacchus MW/LW opsin gene, upstream flanking region |
| 1633 | 14785 | 27871 | 1.11 | 4.3E-01 | AW866550.1 | EST_HUMAN | QV4-SN0024-200400-183-b01 SN0024 Homo sapiens cDNA |
| 2935 | 16112 | | 1.34 | 4.3E-01 | AW935269.1 | EST_HUMAN | CM2-DT0003-010200-077-c01 DT0003 Homo sapiens cDNA |
| 3127 | 16303 | 29316 | 0.95 | 4.3E-01 | AW999477.1 | EST_HUMAN | MR0-BN0070-270300-008-g04 BN0070 Homo sapiens cDNA |
| 4526 | 13619 | 26659 | 1.27 | 4.3E-01 | AF155218.1 | NT | Callithrix jacchus MW/LW opsin gene, upstream flanking region |
| 4526 | 13619 | 26660 | 1.27 | 4.3E-01 | AF155218.1 | NT | Callithrix jacchus MW/LW opsin gene, upstream flanking region |
| 5071 | 18199 | | 1.04 | 4.3E-01 | AL161502.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 14 |
| 5220 | 18342 | | 0.94 | 4.3E-01 | 9635250 | NT | Xestia c-nigrum granulovirus, complete genome |
| 5480 | 18679 | 31693 | 0.95 | 4.3E-01 | P48634 | SWISSPROT | LARGE PROLINE-RICH PROTEIN BAT2 (HLA-B-ASSOCIATED TRANSCRIPT 2) |
| 5480 | 18679 | 31694 | 0.95 | 4.3E-01 | P48634 | SWISSPROT | LARGE PROLINE-RICH PROTEIN BAT2 (HLA-B-ASSOCIATED TRANSCRIPT 2) |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6009 | 19194 | 32512 | 1.31 | 4.3E-01 | BE181655.1 | EST_HUMAN | QV1-HT0638-070500-191-d08 HT0638 Homo sapiens cDNA |
| 6027 | 19210 | 32530 | 1.99 | 4.3E-01 | AF179825.1 | NT | Saimiri sciureus olfactory receptor (SSC186) gene, partial cds |
| 6847 | 20000 | 33408 | 3.1 | 4.3E-01 | AJ001678.1 | NT | Coturnix coturnix japonica ifnG gene |
| 6925 | 20240 | 33675 | 0.67 | 4.3E-01 | AF075629.1 | NT | Equus caballus microsatellite LEX027 |
| 7005 | 20141 | | 0.77 | 4.3E-01 | O33367 | SWISSPROT | DNA GYRASE SUBUNIT B |
| 7586 | 20658 | | 1.28 | 4.3E-01 | BF348001.1 | EST_HUMAN | 602023134F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4158296 5' |
| 8622 | 21702 | | 3.15 | 4.3E-01 | U97040.1 | NT | Methanococcus voltae flagella-related protein C-I (flaC-flaI) genes, complete cds |
| 9455 | 22571 | 36137 | 1.02 | 4.3E-01 | Y14604.1 | NT | Erwinia amylovora rcsV gene |
| 9928 | 22968 | 36558 | 2.36 | 4.3E-01 | AW630048.1 | EST_HUMAN | hh74e10.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2968554 5' |
| 9928 | 22968 | 36557 | 2.36 | 4.3E-01 | AW630048.1 | EST_HUMAN | hh74e10.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2968554 5' |
| 10433 | 23468 | 37075 | 0.99 | 4.3E-01 | AW170559.1 | EST_HUMAN | xn63e05.x1 Soares_NHCeC_cervical_tumor Homo sapiens cDNA clone IMAGE:2698400 3' similar to TR:O00189 O00189 MU-ADAPTIN-RELATED PROTEIN 2. ; |
| 11172 | 20240 | 33675 | 2.27 | 4.3E-01 | AF075629.1 | NT | Equus caballus microsatellite LEX027 |
| 13162 | 25754 | | 1.56 | 4.3E-01 | AJ003022.1 | NT | Streptomyces coelicolor whiH gene |
| 1389 | 16036 | 27619 | 1.17 | 4.2E-01 | Q39102 | SWISSPROT | CELL DIVISION PROTEIN FTSH HOMOLOG PRECURSOR |
| 2002 | 15143 | | 1.02 | 4.2E-01 | AA761653.1 | EST_HUMAN | nz24a09.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1288696 3' |
| 3697 | 16858 | 29862 | 4.1 | 4.2E-01 | AE003947.1 | NT | Xylella fastidiosa, section 93 of 229 of the complete genome |
| 3727 | 16888 | 29892 | 1.09 | 4.2E-01 | AI280338.1 | EST_HUMAN | ql94b01.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1879945 3' |
| 3803 | 18477 | | 0.73 | 4.2E-01 | N81203.1 | EST_HUMAN | 788IE1 fetal brain cDNA Homo sapiens cDNA clone 788iE1-K similar to R07879, Z40498 |
| 3984 | 17141 | 30146 | 0.74 | 4.2E-01 | AW835527.1 | EST_HUMAN | QV0-LT0015-180200-127-h01 LT0015 Homo sapiens cDNA |
| 4819 | 17952 | 30937 | 2.57 | 4.2E-01 | AA534093.1 | EST_HUMAN | nj69h01.s1 NCI_CGAP_Pr10 Homo sapiens cDNA clone IMAGE:997777 similar to gb:M33600 HLA CLASS II HISTOCOMPATIBILITY ANTIGEN, DR-1 BETA CHAIN (HUMAN); |
| 4903 | 18033 | 31022 | 3.8 | 4.2E-01 | R13467.1 | EST_HUMAN | yf77e01.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:28278 5' |
| 5832 | 19023 | 32330 | 1.42 | 4.2E-01 | BF242055.1 | EST_HUMAN | 601879721F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4108493 5' |
| 5901 | 19090 | 32404 | 1.63 | 4.2E-01 | AW854162.1 | EST_HUMAN | RC3-CT0254-060400-029-g04 CT0254 Homo sapiens cDNA |
| 6334 | 19505 | 32863 | 0.99 | 4.2E-01 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 7090 | 20184 | 33608 | 8.72 | 4.2E-01 | AU158472.1 | EST_HUMAN | AU158472 PLACE2 Homo sapiens cDNA clone PLACE2000470 3' |
| 7090 | 20184 | 33609 | 8.72 | 4.2E-01 | AU158472.1 | EST_HUMAN | AU158472 PLACE2 Homo sapiens cDNA clone PLACE2000470 3' |
| 7151 | 25839 | 33727 | 3.21 | 4.2E-01 | S82504.1 | NT | Brca1=breast cancer gene [rats, WF, spleen, Genomic, 419 nt, segment 2 of 2] |
| 7242 | 20326 | 33770 | 6.61 | 4.2E-01 | AL161547.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 47 |
| 7745 | 20805 | 34294 | 0.81 | 4.2E-01 | AL163252.2 | NT | Homo sapiens chromosome 21 segment HS21C052 |
| 8182 | 21264 | 34786 | 4.01 | 4.2E-01 | AW957448.1 | EST_HUMAN | EST369413 MAGE resequences, MAGE Homo sapiens cDNA |
| 8182 | 21264 | 34787 | 4.01 | 4.2E-01 | AW957448.1 | EST_HUMAN | EST369413 MAGE resequences, MAGE Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8401 | 21482 | 35010 | 0.72 | 4.2E-01 | 4758039 | NT | Homo sapiens cytochrome c oxidase subunit VIc (COX6C), nuclear gene encoding mitochondrial protein, mRNA |
| 9511 | 22576 | 36141 | 0.51 | 4.2E-01 | U57431.1 | NT | Human cytomegalovirus early phosphoprotein p50 mRNA, complete cds |
| 9511 | 22576 | 36142 | 0.51 | 4.2E-01 | U57431.1 | NT | Human cytomegalovirus early phosphoprotein p50 mRNA, complete cds |
| 10176 | 23212 | | 0.81 | 4.2E-01 | AA705007.1 | EST_HUMAN | zj95f01.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:462649 3' |
| 10714 | 23747 | 37354 | 1.44 | 4.2E-01 | AW863666.1 | EST_HUMAN | MR3-SN0010-280300-103-h07 SN0010 Homo sapiens cDNA |
| 11298 | 24364 | 38005 | 1.43 | 4.2E-01 | AB023489.1 | NT | Oryzias latipes OlGC7 mRNA for membrane guanylyl cyclase, complete cds |
| 11679 | 24678 | 38368 | 1.87 | 4.2E-01 | BE966485.2 | EST_HUMAN | 601660352R1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3906085 3' |
| 1118 | 14283 | 27338 | 2.11 | 4.1E-01 | AI905481.1 | EST_HUMAN | RC-BT091-210199-142 BT091 Homo sapiens cDNA |
| 1127 | 14292 | 27347 | 1.46 | 4.1E-01 | AV705243.1 | EST_HUMAN | AV705243 ADB Homo sapiens cDNA clone ADBAHF08 5' |
| 1127 | 14292 | 27348 | 1.46 | 4.1E-01 | AV705243.1 | EST_HUMAN | AV705243 ADB Homo sapiens cDNA clone ADBAHF08 5' |
| 1640 | 14792 | 27877 | 1.77 | 4.1E-01 | AI905949.1 | EST_HUMAN | PM-BT103-270499-684 BT103 Homo sapiens cDNA |
| 2775 | 15890 | 29001 | 1.46 | 4.1E-01 | 7705283 | NT | Homo sapiens anaphase-promoting complex subunit 7 (APC7), mRNA |
| 3006 | 16181 | 29202 | 2.12 | 4.1E-01 | AL161536.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 36 |
| 3006 | 16181 | 29203 | 2.12 | 4.1E-01 | AL161536.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 36 |
| 3375 | 16547 | 29561 | 0.66 | 4.1E-01 | AA906344.1 | EST_HUMAN | oj94b08.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1505943 3' |
| 3871 | 17030 | 30028 | 0.73 | 4.1E-01 | AW961292.1 | EST_HUMAN | EST373364 MAGE resequences, MAGG Homo sapiens cDNA |
| 3871 | 17030 | 30029 | 0.73 | 4.1E-01 | AW961292.1 | EST_HUMAN | EST373364 MAGE resequences, MAGG Homo sapiens cDNA |
| 4389 | 17532 | 30513 | 3.78 | 4.1E-01 | AJ249207.1 | NT | Rhodococcus sp. AD45 isoG, isoH, isoI, isoJ, isoA, isoB, isoC, isoD, isoE and isoF genes |
| 4422 | 17563 | | 0.99 | 4.1E-01 | AA909257.1 | EST_HUMAN | om33d02.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1542819 3' |
| 4789 | 17924 | 30912 | 1.36 | 4.1E-01 | AV747880.1 | EST_HUMAN | AV747880 NPC Homo sapiens cDNA clone NPCBDF10 5' |
| 6111 | 19291 | 32626 | 4.84 | 4.1E-01 | BF681393.1 | EST_HUMAN | 602156590F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4297319 5' |
| 6857 | 20010 | 33420 | 0.65 | 4.1E-01 | U02298.1 | NT | Mus musculus NIH 3T3 chemokine rantes (Scya5) gene, complete cds |
| 7590 | 20661 | 34137 | 2.48 | 4.1E-01 | U67535.1 | NT | Methanococcus jannaschii section 77 of 150 of the complete genome |
| 8225 | 21307 | 34827 | 1.36 | 4.1E-01 | BF574604.1 | EST_HUMAN | 602133261F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4288238 5' |
| 9292 | 22368 | 35918 | 1.51 | 4.1E-01 | 6755521 | NT | Mus musculus signaling intermediate in Toll pathway-evolutionarily conserved (Sitpec-pending), mRNA |
| 9765 | 22762 | | 0.75 | 4.1E-01 | AF160597.1 | NT | Voalavo gymnocaudus Vgym560 cytochrome b (cytb) gene, complete cds; mitochondrial gene for mitochondrial product |
| 10470 | 23505 | | 1.56 | 4.1E-01 | AL139076.2 | NT | Campylobacter jejuni NCTC11168 complete genome; segment 3/6 |
| 10622 | 23656 | 37266 | 1.15 | 4.1E-01 | AV649579.1 | EST_HUMAN | AV649579 GLC Homo sapiens cDNA clone GLCBVD12 3' |
| 10725 | 23758 | 37365 | 0.68 | 4.1E-01 | P18584 | SWISSPROT | PROBABLE SERINE PROTEASE DO-LIKE PRECURSOR (59 KDA IMMUNOGENIC PROTEIN) (SK59) |
| 10725 | 23758 | 37366 | 0.68 | 4.1E-01 | P18584 | SWISSPROT | PROBABLE SERINE PROTEASE DO-LIKE PRECURSOR (59 KDA IMMUNOGENIC PROTEIN) (SK59) |
| 10806 | 23839 | | 1.14 | 4.1E-01 | BF349382.1 | EST_HUMAN | CM2-HT0137-200999-010-e08 HT0137 Homo sapiens cDNA |

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## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11078 | 24153 | 37790 | 40.17 | 4.1E-01 | X68700.1 | NT | Zea mays ZMPMS2 gene for 19 kDa zein protein |
| 11675 | 23903 | 37525 | 1.88 | 4.1E-01 | Q09470 | SWISSPROT | VOLTAGE-GATED POTASSIUM CHANNEL PROTEIN KV1.1 (HUKI) (HBK1) |
| 12810 | 26139 | | 2.33 | 4.1E-01 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 13153 | 26169 | | 1.24 | 4.1E-01 | AJ131016.1 | NT | Homo sapiens SCL gene locus |
| 1064 | 14229 | 27286 | 1.49 | 4.0E-01 | 8404656 | NT | Laqueus rubellus mitochondrion, complete genome |
| 1370 | 14525 | 27599 | 1.21 | 4.0E-01 | AF203478.1 | NT | Drosophila melanogaster Dalmatian (dmt) mRNA, complete cds |
| 1514 | 14667 | | 5.48 | 4.0E-01 | 6679258 | NT | Mus musculus platelet derived growth factor receptor, beta polypeptide (Pdgfrb), mRNA |
| 2061 | 16053 | 28316 | 1.08 | 4.0E-01 | Z96933.1 | NT | Ascobolus immersus masc2 gene |
| 2061 | 16053 | 28317 | 1.08 | 4.0E-01 | Z96933.1 | NT | Ascobolus immersus masc2 gene |
| 2866 | 13369 | 26402 | 1.11 | 4.0E-01 | 6678490 | NT | Mus musculus ubiquitin-protein ligase e3 componen n-recognin (Ubr1), mRNA |
| 3033 | 16209 | 29231 | 1.18 | 4.0E-01 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 3033 | 16209 | 29232 | 1.18 | 4.0E-01 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 3786 | 16947 | 29955 | 1.87 | 4.0E-01 | AF068903.1 | NT | Streptococcus pneumoniae YllC (yllC), YllD (yllD), penicillin-binding protein 2x (pbp2x), and undecaprenyl-phosphate-UDP-MurNAc-pentapeptide phospho-MurNAc-pentapeptide transferase (mraY) genes, complete cds |
| 3932 | 17091 | 30088 | 3.21 | 4.0E-01 | AJ277511.1 | NT | Ovis aries partial JD2 gene for T cell receptor delta chain (TCRDJ2), exon 1 |
| 3932 | 17091 | 30089 | 3.21 | 4.0E-01 | AJ277611.1 | NT | Ovis aries partial JD2 gene for T cell receptor delta chain (TCRDJ2), exon 1 |
| 4938 | 18068 | | 8.59 | 4.0E-01 | Q31849 | SWISSPROT | NADH-PLASTOQUINONE OXIDOREDUCTASE CHAIN 5, CHLOROPLAST |
| 6031 | 19214 | 32535 | 1.07 | 4.0E-01 | AW970610.1 | EST_HUMAN | EST382691 MAGE resequences, MAGK Homo sapiens cDNA |
| 6568 | 19730 | 33108 | 0.62 | 4.0E-01 | P27285 | SWISSPROT | STRUCTURAL POLYPROTEIN (P130) [CONTAINS: COAT PROTEIN C ; SPIKE GLYCOPROTEINS E3, E2 AND E1; 6 KD PEPTIDE] |
| 8113 | 21195 | 34714 | 0.51 | 4.0E-01 | BF092634.1 | EST_HUMAN | MR4-TN0110-180900-202-g02 TN0110 Homo sapiens cDNA |
| 8201 | 21283 | 34806 | 0.73 | 4.0E-01 | AB016625.1 | NT | Homo sapiens OCTN2 gene, complete cds |
| 9208 | 22286 | 35827 | 1.11 | 4.0E-01 | AA323289.1 | EST_HUMAN | EST26066 Cerebellum II Homo sapiens cDNA 5' end similar to EST containing Alu repeat |
| 11869 | 24857 | | 1.67 | 4.0E-01 | BF030262.1 | EST_HUMAN | 601558283F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3828092 5' |
| 12021 | 25005 | | 2.38 | 4.0E-01 | L76080.1 | NT | Synechocystis sp. PCC 9413 transposase gene, complete cds |
| 12453 | 25978 | | 2.5 | 4.0E-01 | AL163300.2 | NT | Homo sapiens chromosome 21 segment HS21C100 |
| 13027 | 26116 | | 1.38 | 4.0E-01 | Z49301.1 | NT | S.cerevisiae chromosome X reading frame ORF YJL026w |
| 13168 | 26036 | | 1.21 | 4.0E-01 | BF432020.1 | EST_HUMAN | nab84e05.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE: 3' similar to SW:NTCR_BOVIN O18875 SODIUM- AND CHLORIDE-DEPENDENT CREATINE TRANSPORTER 1 ; |
| 13222 | 25907 | | 1.26 | 4.0E-01 | Z49301.1 | NT | S.cerevisiae chromosome X reading frame ORF YJL026w |
| 1409 | 14563 | 27638 | 1.84 | 3.9E-01 | AF206618.1 | NT | Gorilla gorilla carboxyl-ester lipase (CEL) gene, complete cds |
| 2707 | 15825 | 28940 | 3.34 | 3.9E-01 | AB033019.1 | NT | Homo sapiens mRNA for KIAA1193 protein, partial cds |
| 2770 | 15885 | 28994 | 5.03 | 3.9E-01 | X82032.1 | NT | H.sapiens B-myb gene |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2770 | 15885 | 28995 | 5.03 | 3.9E-01 | X82032.1 | NT | H.sapiens B-myb gene |
| 3166 | 16341 | 29349 | 4.24 | 3.9E-01 | AJ225896.1 | NT | Sinorhizobium meliloti egl, syrB2, cya3 genes and orf3 |
| 4190 | 17340 | 30333 | 1.48 | 3.9E-01 | BF592611.1 | EST_HUMAN | 7i61d01.x1 NCI_CGAP_Br16 Homo sapiens cDNA clone IMAGE:3339169 3' |
| 5106 | 18234 | 31203 | 1.47 | 3.9E-01 | BE728667.1 | EST_HUMAN | 601563948F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3833699 5' |
| 6055 | 19237 | 32562 | 4.58 | 3.9E-01 | BF208036.1 | EST_HUMAN | 601862362F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:4082055 5' |
| 6410 | 19579 | 32940 | 0.64 | 3.9E-01 | U82695.2 | NT | Homo sapiens zinc finger protein 92 (ZFP92), expressed-Xq28STS protein (XQ28ORF), and biglycan (BGN) genes, complete cds; and plasma membrane calcium ATPase isoform 3 (PMCA3) gene, partial cds |
| 8140 | 21222 | 34740 | 0.99 | 3.9E-01 | U79415.1 | NT | Homo sapiens prepro dipeptidyl peptidase I (DPP-I) gene, complete cds |
| 9062 | 22141 | 35686 | 0.83 | 3.9E-01 | AW177011.1 | EST_HUMAN | CM3-CT0105-170899-004-b08 CT0105 Homo sapiens cDNA |
| 9071 | 22150 | | 0.82 | 3.9E-01 | BF348634.1 | EST_HUMAN | 602019944F1 NCI_CGAP_Bm67 Homo sapiens cDNA clone IMAGE:4155322 5' |
| 9435 | 22509 | 36075 | 1.73 | 3.9E-01 | AW195888.1 | EST_HUMAN | xn86d04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2701351 3' similar to TR:O94821 O94821 KIAA0713 PROTEIN ; |
| 9745 | 22809 | 36387 | 1.59 | 3.9E-01 | AI937337.1 | EST_HUMAN | wp76a02.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2467658 3' similar to SW:RFX5_HUMAN P48382 BINDING REGULATORY FACTOR. ; |
| 10082 | 23120 | 36722 | 2.88 | 3.9E-01 | M19879.1 | NT | Human clabindin 27 gene, exons 10 and 11, and L1 and Alu repeats |
| 10150 | 23188 | | 0.58 | 3.9E-01 | 11465620 | NT | Porphyra purpurea mitochondrion, complete genome |
| 10369 | 23404 | 37015 | 0.92 | 3.9E-01 | D86722.1 | NT | Nicotiana tabacum mRNA for TATA binding protein (TBP), complete cds |
| 10562 | 23597 | 37203 | 0,61 | 3.9E-01 | BF361856.1 | EST_HUMAN | CM2-NN0034-030600-218-h04 NN0034 Homo sapiens cDNA |
| 10562 | 23597 | 37204 | 0.61 | 3.9E-01 | BF361856.1 | EST_HUMAN | CM2-NN0034-030600-218-h04 NN0034 Homo sapiens cDNA |
| 10836 | 23869 | | 0.47 | 3.9E-01 | AB037832.1 | NT | Homo sapiens mRNA for KIAA1411 protein, partial cds |
| 11059 | 24135 | | 1.37 | 3.9E-01 | AV695974.1 | EST_HUMAN | AV695974 GKC Homo sapiens cDNA clone GKCBQC11 5' |
| 12049 | 25030 | 38736 | 1.89 | 3.9E-01 | AV702623.1 | EST_HUMAN | AV702623 ADB Homo sapiens cDNA clone ADBDBE06 5' |
| 12221 | 26055 | | 4.03 | 3.9E-01 | AF304354.1 | NT | Homo sapiens proteoglycan 3 (PRG3) gene, complete cds |
| 12916 | 25603 | | 1.75 | 3.9E-01 | 11433335 | NT | Homo sapiens hypothetical protein FLJ10583 (FLJ10583), mRNA |
| 164 | 13389 | | 7.58 | 3.8E-01 | 7019488 | NT | Homo sapiens protein kinase PKNbeta (pknbeta), mRNA |
| 518 | 13711 | | 6.1 | 3.8E-01 | AB029291.1 | NT | Mus musculus pcm-1 mRNA for pericentriolar material-1, complete cds |
| 1919 | 15062 | | 1.36 | 3.8E-01 | AE003870.1 | NT | Xylella fastidiosa, section 16 of 229 of the complete genome |
| 2637 | 15760 | 28874 | 1.84 | 3.8E-01 | AF214117.1 | NT | Arabidopsis thaliana putative c-myb-like transcription factor (MYB3R-3) mRNA, complete cds |
| 2697 | 16069 | 28931 | 5.2 | 3.8E-01 | 6678002 | NT | Mus musculus solute carrier family 1, member 6 (Slc1a6), mRNA |
| 3066 | 16242 | | 0.71 | 3.8E-01 | AJ251057.1 | NT | Human immunodeficiency virus type 1 complete genome (isolate 98SE-MP1213) |
| 3113 | 16289 | 29305 | 1.91 | 3.8E-01 | AF043383.1 | NT | Pleuronectes americanus aminopeptidase N (ampN) gene, partial cds |
| 3572 | 16737 | 29752 | 8.7 | 3.8E-01 | AL161518.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 30 |
| 3628 | 16792 | | 1.09 | 3.8E-01 | AI807219.1 | EST_HUMAN | wf38b12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2357855 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3643 | 16792 | | 0.97 | 3.8E-01 | AI807219.1 | EST_HUMAN | wf38b12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2357855 3' |
| 3852 | 17012 | 30012 | 1.07 | 3.8E-01 | BE154080.1 | EST_HUMAN | PM0-HT0339-200400-010-G01 HT0339 Homo sapiens cDNA |
| 4027 | 17183 | 30192 | 0.65 | 3.8E-01 | 6754095 | NT | Mus musculus general transcription factor II I (Gtf2i), mRNA |
| 5727 | 18920 | 32214 | 1.11 | 3.8E-01 | Q04888 | SWISSPROT | TRANSCRIPTION FACTOR SOX-10 |
| 6469 | 19636 | | 0.63 | 3.8E-01 | S46825.1 | NT | prion protein [mink, Genomic, 2446 nt] |
| 6761 | 19917 | 33312 | 5.74 | 3.8E-01 | BE072399.1 | EST_HUMAN | QV3-BT0537-271299-049-e02 BT0537 Homo sapiens cDNA |
| 6899 | 20214 | 33644 | 4.39 | 3.8E-01 | AI374601.1 | EST_HUMAN | ta54f11.x1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:2047917 3' similar to contains Alu repetitive element; |
| 7079 | 20132 | 33549 | 1.38 | 3.8E-01 | AL161513.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 25 |
| 7685 | 20760 | | 4.27 | 3.8E-01 | X61597.1 | NT | M.musculus gene for kallikrein-binding protein |
| 8493 | 21574 | 35111 | 0.54 | 3.8E-01 | M81385.1 | NT | Mouse liver receptor homologous protein (LRH-1) mRNA, complete cds |
| 8754 | 21833 | 35373 | 2.04 | 3.8E-01 | AB046851.1 | NT | Homo sapiens mRNA for KIAA1631 protein, partial cds |
| 8826 | 21905 | 35444 | 1.08 | 3.8E-01 | 11441264 | NT | Homo sapiens FOS-like antigen-1 (FOSL1), mRNA |
| 9017 | 22096 | 35636 | 1.29 | 3.8E-01 | AL163279.2 | NT | Homo sapiens chromosome 21 segment HS21C079 |
| 9761 | 22699 | | 4.35 | 3.8E-01 | T95413.1 | EST_HUMAN | ye43h06.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:120539 5' similar to contains Alu repetitive element;contains PTR5 repetitive element ; |
| 11034 | 24113 | | 1.38 | 3.8E-01 | AV755814.1 | EST_HUMAN | AV755814 BM Homo sapiens cDNA clone BMFBCE07 5' |
| 11699 | 24696 | 38388 | 1.57 | 3.8E-01 | U82671.2 | NT | Homo sapiens chromosome Xq28 melanoma antigen family A2a (MAGEA2A), melanoma antigen family A12 (MAGEA12), melanoma antigen family A2b (MAGEA2B), melanoma antigen family A3 (MAGEA3), caltractin (CALT), NAD(P)H dehydrogenase-like protein (NSDHL), and LI> |
| 11824 | 24813 | | 2.87 | 3.8E-01 | BE719219.1 | EST_HUMAN | RC0-HT0841-040800-032-b12 HT0841 Homo sapiens cDNA |
| 11992 | 24977 | 38681 | 2.6 | 3.8E-01 | R42550.1 | EST_HUMAN | yf92h11.s1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:30289 3' |
| 11992 | 24977 | 38682 | 2.5 | 3.8E-01 | R42550.1 | EST_HUMAN | yf92h11.s1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:30289 3' |
| 12436 | 25309 | | 2.61 | 3.8E-01 | AE001124.1 | NT | Borrelia burgdorferi (section 10 of 70) of the complete genome |
| 12569 | 26082 | | 2 | 3.8E-01 | U94788.1 | NT | Human p53 (TP53) gene, complete cds |
| 12695 | 25463 | | 1.71 | 3.8E-01 | BE829256.1 | EST_HUMAN | QV3-ET0063-190700-271-a05 ET0063 Homo sapiens cDNA |
| 13105 | 25720 | | 1.48 | 3.8E-01 | U78031.1 | NT | Mus musculus apoptosis inhibitor bcl-x (bcl-x) gene, exon 3 and complete cds |
| 13188 | 25772 | 31933 | 1.78 | 3.8E-01 | AF194972.1 | NT | Mus musculus developmental control protein mRNA, partial cds |
| 2551 | 15676 | 28799 | 12.91 | 3.7E-01 | AB037831.1 | NT | Homo sapiens mRNA for KIAA1410 protein, partial cds |
| 3549 | 16714 | 29726 | 10.67 | 3.7E-01 | AF056336.1 | NT | Danio rerio bone morphogenetic protein 4 precursor (BMP4) gene, complete cds |
| 3974 | 17131 | 30135 | 1.09 | 3.7E-01 | AA319482.1 | EST_HUMAN | EST21715 Adrenal gland tumor Homo sapiens cDNA 5' end |
| 4344 | 17487 | 30470 | 9.09 | 3.7E-01 | AI218707.1 | EST_HUMAN | ok39c07.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:1510188 3' |
| 4440 | 17580 | 30569 | 1.31 | 3.7E-01 | AW878037.1 | EST_HUMAN | MR3-OT0007-080300-104-b02 OT0007 Homo sapiens cDNA |
| 4509 | 17648 | 30636 | 2.91 | 3.7E-01 | AE002408.1 | NT | Neisseria meningitidis serogroup B strain MC58 section 50 of 206 of the complete genome |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5280 | 18399 | 31368 | 0.74 | 3.7E-01 | T12298.1 | EST_HUMAN | A033R Heart Homo sapiens cDNA clone A033 |
| 5280 | 18399 | 31369 | 0.74 | 3.7E-01 | T12298.1 | EST_HUMAN | A033R Heart Homo sapiens cDNA clone A033 |
| 5883 | 19072 | 32380 | 1.27 | 3.7E-01 | AF135187.1 | NT | Homo sapiens interferon-induced protein p78 (MX1) gene, complete cds |
| 6071 | 19253 | 32582 | 1.25 | 3.7E-01 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 6639 | 19798 | 33187 | 0.7 | 3.7E-01 | M10806.1 | NT | Chicken (White leghorn) delta-1 and delta-2 crystallin genes, complete cds |
| 6660 | 19819 |  | 0.8 | 3.7E-01 | L10353.1 | NT | Mus saxicola haptoglobin mRNA, complete cds |
| 7293 | 20375 | 33832 | 3.48 | 3.7E-01 | 11525843 | NT | Homo sapiens tumor endothelial marker 7 precursor (TEM7), mRNA |
| 7965 | 21015 | 34527 | 0.69 | 3.7E-01 | T66802.1 | EST_HUMAN | ya50a07.r3 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:66324 5' |
| 8524 | 21605 | 35143 | 1.96 | 3.7E-01 | 11436739 | NT | Homo sapiens chromosome 12 open reading frame 4 (C12ORF4), mRNA |
| 8524 | 21605 | 35144 | 1.96 | 3.7E-01 | 11436739 | NT | Homo sapiens chromosome 12 open reading frame 4 (C12ORF4), mRNA |
| 8560 | 21641 | 35180 | 0.68 | 3.7E-01 | AA902912.1 | EST_HUMAN | ok43b11.s1 NCI_CGAP_Lei2 Homo sapiens cDNA clone IMAGE:1516701 3' |
| 9402 | 22476 |  | 1.34 | 3.7E-01 | AJ271386.1 | NT | Gallus gallus mRNA for beta-carotene 15,15'-dioxygenase (bCDO gene) |
| 10373 | 23408 |  | 0.5 | 3.7E-01 | K00691.1 | NT | mouse Ig germline alpha membrane exone region |
| 10414 | 23449 | 37054 | 4.21 | 3.7E-01 | AI336411.1 | EST_HUMAN | qt46b07.x1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:1950997 3' |
| 10783 | 23816 | 37437 | 0.46 | 3.7E-01 | U08361.1 | NT | HIV-1 RU107B from Russia, gp120 V3-V5 region (env) gene, partial cds |
| 10783 | 23816 | 37438 | 0.46 | 3.7E-01 | U08361.1 | NT | HIV-1 RU107B from Russia, gp120 V3-V5 region (env) gene, partial cds |
| 11097 | 24170 | 37805 | 1.8 | 3.7E-01 | X05958.1 | NT | Rabbit mRNA for fast skeletal muscle myosin heavy chain (MHC) |
| 11285 | 24351 | 37989 | 2.02 | 3.7E-01 | AJ297357.1 | NT | Homo sapiens partial LIMD1 gene for LIM domains containing protein 1 and KIAA0851 gene |
| 11285 | 24351 | 37990 | 2.02 | 3.7E-01 | AJ297357.1 | NT | Homo sapiens partial LIMD1 gene for LIM domains containing protein 1 and KIAA0851 gene |
| 11754 | 23940 | 37566 | 2.73 | 3.7E-01 | X04122.1 | NT | Bovine mRNA for terminal deoxynucleotidyltransferase (TdT) (EC 2.7.7.31) |
| 12004 | 24989 |  | 1.42 | 3.7E-01 | AA973540.1 | EST_HUMAN | oo46d03.s1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1569221 3' similar to gb:M77698 TRANSCRIPTIONAL REPRESSOR PROTEIN YY1 (HUMAN); |
| 12066 | 25047 |  | 3.5 | 3.7E-01 | 6677678 | NT | Mus musculus retinoblastoma 1 (Rb1), mRNA |
| 12137 | 25654 |  | 1.17 | 3.7E-01 | J04982.1 | NT | Human heart/skeletal muscle ATP/ADP translocator (ANT1) gene, complete cds |
| 12314 | 25229 |  | 3.94 | 3.7E-01 | AJ243525.1 | NT | Chlamydophila psittaci partial omp1 gene for outer membrane protein 1 |
| 12410 | 25289 |  | 1.82 | 3.7E-01 | D86976.1 | NT | Human mRNA for KIAA0223 gene, partial cds |
| 12821 | 25548 |  | 2.94 | 3.7E-01 | AL121154.1 | EST_HUMAN | DKFZp762K075_r1 762 (synonym: hmel2) Homo sapiens cDNA clone DKFZp762K075 5' |
| 12902 | 25597 | 31971 | 6.99 | 3.7E-01 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 271 | 13489 | 26520 | 0.77 | 3.6E-01 | AJ009609.1 | NT | Brassica napus mRNA for MAP4K alpha2 protein |
| 1020 | 14191 |  | 9.07 | 3.6E-01 | U89241.1 | NT | Human mibp gene, partial cds |
| 1342 | 14498 | 27570 | 3.97 | 3.6E-01 | T80255.1 | EST_HUMAN | yd03e05.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:24443 5' |
| 1342 | 14498 | 27571 | 3.97 | 3.6E-01 | T80255.1 | EST_HUMAN | yd03e05.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:24443 5' |
| 1966 | 15109 | 28209 | 6.55 | 3.6E-01 | AW590184.1 | EST_HUMAN | hg33f02.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2947419 3' |
| 1966 | 15109 | 28210 | 6.55 | 3.6E-01 | AW590184.1 | EST_HUMAN | hg33f02.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2947419 3' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2007 | 15147 | 28253 | 6.7 | 3.6E-01 | AF216207.1 | NT | Mus musculus ribosomal protein S19 (Rps19) gene, complete cds |
| 2113 | 15251 |  | 1.15 | 3.6E-01 | AF056927.1 | NT | Rattus norvegicus repeat element associated with the Rasgrf1 gene |
| 2343 | 15474 |  | 2.33 | 3.6E-01 | AB002321.1 | NT | Human mRNA for KIAA0323 gene, partial cds |
| 2463 | 15590 |  | 2.8 | 3.6E-01 | X76725.1 | NT | P.irregulare (P3804) gene for actin |
| 2556 | 15681 | 28806 | 2.66 | 3.6E-01 | AW812033.1 | EST_HUMAN | RC5-ST0171-181099-011-g07 ST0171 Homo sapiens cDNA |
| 2694 | 15814 | 28929 | 1.69 | 3.6E-01 | P24206 | SWISSPROT | PROTEIN-L-ISOASPARTATE O-METHYLTRANSFERASE (PROTEIN-BETA-ASPARTATE METHYLTRANSFERASE) (PIMT) (PROTEIN L-ISOASPARTYL METHYLTRANSFERASE) (L-ISOASPARTYL PROTEIN CARBOXYL METHYLTRANSFERASE) |
| 2964 | 18475 |  | 8.47 | 3.6E-01 | AF199485.1 | NT | Drosophila melanogaster sugar transporter 3 (sut3) mRNA, complete cds |
| 3558 | 16723 | 29738 | 1.98 | 3.6E-01 | X76758.1 | NT | H.sapiens serotonin transporter gene, exons 9 and 10 |
| 3558 | 16723 | 29739 | 1.98 | 3.6E-01 | X76758.1 | NT | H.sapiens serotonin transporter gene, exons 9 and 10 |
| 4528 | 17666 | 30652 | 1.2 | 3.6E-01 | BE707883.1 | EST_HUMAN | RC1-HT0545-150600-014-b12 HT0545 Homo sapiens cDNA |
| 4863 | 17996 | 30981 | 0.69 | 3.6E-01 | AJ009609.1 | NT | Brassica napus mRNA for MAP4K alpha2 protein |
| 5123 | 18249 | 31215 | 3.18 | 3.6E-01 | AW339393.1 | EST_HUMAN | ha02g04.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2872566 3' |
| 5209 | 18330 | 31302 | 0.92 | 3.6E-01 | BE067699.1 | EST_HUMAN | MR4-BT0358-270300-005-c10 BT0358 Homo sapiens cDNA |
| 5498 | 18697 | 31713 | 0.64 | 3.6E-01 | AJ006565.1 | NT | Homo sapiens lipe gene intron 5 |
| 6211 | 19386 | 32735 | 0.96 | 3.6E-01 | P16431 | SWISSPROT | FORMATE HYDROGENLYASE SUBUNIT 5 PRECURSOR (FHL SUBUNIT 5) (HYDROGENASE-3 COMPONENT E) |
| 6607 | 19767 | 33155 | 1.63 | 3.6E-01 | Y10196.1 | NT | Homo sapiens PHEX gene |
| 7298 | 20380 |  | 3.85 | 3.6E-01 | R94090.1 | EST_HUMAN | yt74a06.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:275987 5' |
| 7435 | 20512 | 33985 | 1.52 | 3.6E-01 | AW027174.1 | EST_HUMAN | wt72c10.x1 Soares_thymus_NHFTh Homo sapiens cDNA clone IMAGE:2513010 3' similar to TR:O15117 O15117 FYN BINDING PROTEIN. [1] ; |
| 8419 | 21500 | 35032 | 0.75 | 3.6E-01 | P98167 | SWISSPROT | SCO-SPONDIN |
| 8474 | 21555 | 35087 | 16.45 | 3.6E-01 | AL161583.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 79 |
| 9179 | 22257 | 35799 | 0.48 | 3.6E-01 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, RoRet gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| 9179 | 22257 | 35800 | 0.48 | 3.6E-01 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, RoRet gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| 9203 | 22281 | 35820 | 3.04 | 3.6E-01 | 4504956 | NT | Homo sapiens lysosomal-associated membrane protein 2 (LAMP2), transcript variant LAMP2A, mRNA |
| 9203 | 22281 | 35821 | 3.04 | 3.6E-01 | 4504956 | NT | Homo sapiens lysosomal-associated membrane protein 2 (LAMP2), transcript variant LAMP2A, mRNA |

## Table 4

## Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9393 | 22468 | 36032 | 1.23 | 3.6E-01 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 9599 | 22654 | 36225 | 1.13 | 3.6E-01 | X17550.1 | NT | D. melanogaster singed gene, exons 3, 4, 5 & 6 |
| 9599 | 22654 | 36226 | 1.13 | 3.6E-01 | X17550.1 | NT | D. melanogaster singed gene, exons 3, 4, 5 & 6 |
| 9669 | 22631 | | 0.58 | 3.6E-01 | X62825.1 | NT | C.perfringens plc gene for phospholipase C upstream region containing bent DNA fragment |
| 10067 | 23105 | 36708 | 16.64 | 3.6E-01 | Q53194 | SWISSPROT | PROBABLE PEPTIDE ABC TRANSPORTER ATP-BINDING PROTEIN Y4TS |
| 11187 | 24256 | 37891 | 2.42 | 3.6E-01 | BE902390.1 | EST_HUMAN | 601676418F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3958997 5' |
| 11370 | 24431 | 38088 | 3.27 | 3.6E-01 | AB004293.1 | NT | Arabidopsis thaliana mRNA for SigB, complete cds |
| 11729 | 23915 | 37640 | 4.44 | 3.6E-01 | AE000856.1 | NT | Methanobacterium thermoautotrophicum from bases 702375 to 714311 (section 62 of 148) of the complete genome |
| 12173 | 26205 | | 3.16 | 3.6E-01 | Y19210.1 | NT | Homo sapiens hHb5 gene for hair keratin, exons 1 to 9 |
| 12261 | 25197 | | 7.87 | 3.6E-01 | AE000335.1 | NT | Escherichia coli K-12 MG1655 section 225 of 400 of the complete genome |
| 12420 | 25297 | | 3.63 | 3.6E-01 | U66888.1 | NT | Mus musculus Emr1 mRNA, complete cds |
| 12828 | 25552 | | 1.98 | 3.6E-01 | 11432598 | NT | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 10 (AF10), mRNA |
| 13130 | 26141 | | 1.4 | 3.6E-01 | AW190229.1 | EST_HUMAN | xl60e11.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2679116 3' similar to gb:K00558 TUBULIN ALPHA-1 CHAIN (HUMAN); |
| 13146 | 25745 | | 1.38 | 3.6E-01 | Z54173.1 | NT | Pyrococcus sp. pol gene |
| 214 | 13437 | 26467 | 3.71 | 3.5E-01 | 6678933 | NT | Mus musculus mannose receptor, C type 2 (Mrc2), mRNA |
| 695 | 13878 | 26911 | 1.03 | 3.5E-01 | AL161581.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 77 |
| 743 | 13924 | 26965 | 1.53 | 3.5E-01 | 7706136 | NT | Homo sapiens GAP-like protein (LOC51306), mRNA |
| 743 | 13924 | 26966 | 1.53 | 3.5E-01 | 7706136 | NT | Homo sapiens GAP-like protein (LOC51306), mRNA |
| 801 | 13981 | 27033 | 4.66 | 3.5E-01 | BF129796.1 | EST_HUMAN | 601811060R1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4053951 3' |
| 1670 | 14822 | 27905 | 1.28 | 3.5E-01 | U35776.1 | NT | Rattus norvegicus ADP-ribosylation factor-directed GTPase activating protein mRNA, complete cds |
| 2671 | 16068 | 28908 | 1.34 | 3.5E-01 | AA223252.1 | EST_HUMAN | zr08a09.s1 Stratagene NT2 neuronal precursor 937230 Homo sapiens cDNA clone IMAGE:650872 3' |
| 3795 | 16956 | | 0.73 | 3.5E-01 | BF214381.1 | EST_HUMAN | 601845470F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4076680 5' |
| 4378 | 17621 | 30501 | 2.62 | 3.5E-01 | AF071253.1 | NT | Danio rerio homeobox protein (hoxb5b) gene, complete cds |
| 5048 | 18176 | 31153 | 4.34 | 3.5E-01 | M18349.1 | NT | Rat leukocyte common antigen (L-CA) gene, exons 1 through 5 |
| 5323 | 13349 | 26376 | 0.6 | 3.5E-01 | AL161536.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 36 |
| 5449 | 18649 | 31627 | 1.1 | 3.5E-01 | Q96687 | SWISSPROT | EARLY E2A DNA-BINDING PROTEIN |
| 5449 | 18649 | 31628 | 1.1 | 3.5E-01 | Q96687 | SWISSPROT | EARLY E2A DNA-BINDING PROTEIN |
| 5667 | 18861 | 32146 | 1.29 | 3.5E-01 | D42045.1 | NT | Human mRNA for KIAA0086 gene, complete cds |
| 6367 | 19537 | | 1 | 3.5E-01 | AW863916.1 | EST_HUMAN | PM4-SN0012-030400-001-a11 SN0012 Homo sapiens cDNA |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6538 | 19701 | 33074 | 0.79 | 3.5E-01 | AA431833.1 | EST_HUMAN | zw79f03.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:782429 5' similar to TR:G1066935 G1066935 F10F2.1 ; |
| 6580 | 19742 | 33124 | 0.69 | 3.5E-01 | U37150.1 | NT | Bos taurus peptide methionine sulfoxide reductase (msrA) mRNA, complete cds |
| 6803 | 19958 | 33358 | 0.9 | 3.5E-01 | O24357 | SWISSPROT | GLUCOSE-6-PHOSPHATE 1-DEHYDROGENASE, CHLOROPLAST PRECURSOR (G6PD) |
| 7201 | 20066 | | 3.38 | 3.5E-01 | X98505.1 | NT | S.scrofa mRNA for CD31 protein (PECAM-1) |
| 7713 | 20778 | 34264 | 0.59 | 3.5E-01 | P47281 | SWISSPROT | HISTIDYL-TRNA SYNTHETASE (HISTIDINE--TRNA LIGASE) (HISRS) |
| 7713 | 20778 | 34265 | 0.59 | 3.5E-01 | P47281 | SWISSPROT | HISTIDYL-TRNA SYNTHETASE (HISTIDINE--TRNA LIGASE) (HISRS) |
| 8262 | 21344 | | 2.12 | 3.5E-01 | 11448042 | NT | Homo sapiens tumor protein p53-binding protein, 2 (TP53BP2), mRNA |
| 8265 | 21347 | 34862 | 0.82 | 3.5E-01 | BF358871.1 | EST_HUMAN | RC4-ET0024-260600-014-d07 ET0024 Homo sapiens cDNA |
| 8662 | 21742 | | 0.77 | 3.5E-01 | AF051561.1 | NT | Rattus norvegicus Na-K-Cl cotransporter (Nkcc1) mRNA, complete cds |
| 9127 | 22206 | 36749 | 1.17 | 3.5E-01 | 4507610 | NT | Homo sapiens tyrosine kinase non-receceptor 1 (TNK1), mRNA |
| 9937 | 22976 | 36567 | 1.75 | 3.5E-01 | Q02294 | SWISSPROT | VOLTAGE-DEPENDENT N-TYPE CALCIUM CHANNEL ALPHA-1B SUBUNIT (CALCIUM CHANNEL, L TYPE, ALPHA-1 POLYPEPTIDE ISOFORM 5) (BRAIN CALCIUM CHANNEL III) (BIII) |
| 10090 | 23128 | 36731 | 4.78 | 3.5E-01 | Z26825.1 | NT | X.laevis gene for albumin including HP1 enhancer |
| 10172 | 23209 | 36802 | 1.12 | 3.5E-01 | BE174794.1 | EST_HUMAN | QV2-HT0577-090400-128-c07 HT0577 Homo sapiens cDNA |
| 10972 | 24052 | 37685 | 2.62 | 3.5E-01 | X61084.1 | NT | C.griseus rhodopsin gene for opsin protein |
| 11274 | 24342 | 37981 | 1.97 | 3.5E-01 | AJ243178.1 | NT | Gallus gallus SPARC gene for osteonectin, promoter and exon 1 |
| 11274 | 24342 | 37982 | 1.97 | 3.5E-01 | AJ243178.1 | NT | Gallus gallus SPARC gene for osteonectin, promoter and exon 1 |
| 11810 | 24800 | 38499 | 1.33 | 3.5E-01 | U07000.1 | NT | Human breakpoint cluster region (BCR) gene, complete cds |
| 11892 | 24880 | 38577 | 1.44 | 3.5E-01 | N77597.1 | EST_HUMAN | yz90h12.r1 Soares_multiple_sclerosis_2NbHMSP Homo sapiens cDNA clone IMAGE:290375 5' |
| 11980 | 24965 | 38667 | 1.53 | 3.5E-01 | L05145.1 | NT | Human glucokinase (GCK) gene, repeat polymorphism |
| 12271 | 26209 | | 1.51 | 3.5E-01 | AF297468.1 | NT | Schistosoma mansoni strain NMRI chromatin assembly factor 1 small subunit-like protein (RBAP48) mRNA, complete cds |
| 12344 | 25249 | | 6.66 | 3.5E-01 | X64565.1 | NT | B.taurus atpA1 gene for F(0)F(1) ATP synthase alpha-subunit |
| 12507 | 25348 | | 2.91 | 3.5E-01 | AE001774.1 | NT | Thermotoga maritima section 86 of 136 of the complete genome |
| 12710 | 25472 | | 1.5 | 3.5E-01 | AE001691.1 | NT | Thermotoga maritima section 3 of 136 of the complete genome |
| 13196 | 26026 | 31673 | 3.16 | 3.5E-01 | H80814.1 | EST_HUMAN | ys64f11.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:219597 5' |
| 13196 | 26026 | 31674 | 3.16 | 3.5E-01 | H80814.1 | EST_HUMAN | ys64f11.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:219597 5' |
| 725 | 13907 | | 1.78 | 3.4E-01 | AJ242956.1 | NT | Homo sapiens partial N-myc (exon 3), HPV45 L2, HPV45 L1, HPV45 E6, HPV45 E7 and HPV45 E1 genes isolated from IC4 cervical carcinoma cell line |
| 998 | 14169 | 27230 | 8.2 | 3.4E-01 | Y09798.2 | NT | Pseudomonas fluorescens colR, colS genes, orf222 and partial inaA gene |
| 1000 | 14171 | 27232 | 2.06 | 3.4E-01 | AW380120.1 | EST_HUMAN | QV3-HT0261-241199-019-g10 HT0261 Homo sapiens cDNA |
| 1357 | 14512 | 27585 | 2.35 | 3.4E-01 | Y00554.1 | NT | Azotobacter vinelandii nifA gene for NifA protein (positive regulatory element) |
| 2474 | 15601 | 28726 | 2.54 | 3.4E-01 | D90909.1 | NT | Synechocystis sp. PCC6803 complete genome, 11/27, 1311235-1430418 |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3065 | 16241 | 29261 | 0.87 | 3.4E-01 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 3065 | 16241 | 29262 | 0.87 | 3.4E-01 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 3218 | 16392 | 29403 | 1.09 | 3.4E-01 | D90909.1 | NT | Synechocystis sp. PCC6803 complete genome, 11/27, 1311235-1430418 |
| 3230 | 16404 | 29416 | 6.1 | 3.4E-01 | U83905.1 | NT | Canis familiaris rod photoreceptor cGMP-gated channel alpha-subunit (CNGC1) mRNA, complete cds |
| 3424 | 16593 | 29608 | 0.78 | 3.4E-01 | AF034862.1 | NT | Homo sapiens pulmonary surfactant protein D, promoter region and exon 1 |
| 3620 | 16784 | 29800 | 4.47 | 3.4E-01 | AF106835.1 | NT | Methylovorus sp. strain SS1 putative GrpE (grpE), DnaK (dnaK), and putative DnaJ (dnaJ) genes, complete cds |
| 3890 | 17049 |  | 1.89 | 3.4E-01 | BF449010.1 | EST_HUMAN | 7n94a01.x1 NCI_CGAP_Ov18 Homo sapiens cDNA clone IMAGE:3572232 3' similar to TR:Q9UJ15 Q9UJ15 DJ18C9.1 ; |
| 4163 | 17313 |  | 1.48 | 3.4E-01 | AA584196.1 | EST_HUMAN | no11b10.s1 NCI_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1100347 3' |
| 4767 | 17802 | 30884 | 1.79 | 3.4E-01 | BE069912.1 | EST_HUMAN | MR4-BT0403-230200-202-c01 BT0403 Homo sapiens cDNA |
| 5066 | 18194 |  | 4.3 | 3.4E-01 | AI240973.1 | EST_HUMAN | qj95c05.x1 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1867208 3' similar to contains Alu repetitive element; |
| 5802 | 18992 | 32295 | 2.64 | 3.4E-01 | AL161594.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 90 |
| 5932 | 19118 |  | 4.92 | 3.4E-01 | AA085313.1 | EST_HUMAN | zn12d11.s1 Stratagene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:547221 3' |
| 6130 | 19309 |  | 2.17 | 3.4E-01 | L02971.1 | NT | Echovirus 22 1AB, 1C, 1D, 2A, 2B, 2C, 3A, 3B, 3C, 3D proteins RNA, complete mature peptides and cds |
| 6154 | 19330 | 32676 | 0.96 | 3.4E-01 | BE748912.1 | EST_HUMAN | 601671811T1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:3838826 3' |
| 6234 | 19409 | 32757 | 1.8 | 3.4E-01 | AW204505.1 | EST_HUMAN | UI-H-BI1-ael-e-12-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2719582 3' |
| 6364 | 19534 | 32893 | 1.71 | 3.4E-01 | AL120544.1 | EST_HUMAN | DKFZp761A249_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761A249 5' |
| 6882 | 20034 |  | 1.39 | 3.4E-01 | N95225.1 | EST_HUMAN | zb53e12.s1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:307342 3' |
| 7086 | 20180 | 33604 | 1.07 | 3.4E-01 | AI468082.1 | EST_HUMAN | tm63g05.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2162840 3' similar to gb:S37431 LAMININ RECEPTOR (HUMAN); |
| 7205 | 20070 | 33480 | 0.6 | 3.4E-01 | BF678702.1 | EST_HUMAN | 602085283F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4249365 5' |
| 8090 | 21172 |  | 0.48 | 3.4E-01 | AE000493.1 | NT | Escherichia coli K-12 MG1655 section 383 of 400 of the complete genome |
| 8432 | 21513 | 35044 | 0.68 | 3.4E-01 | Y14930.1 | NT | Homo sapiens TCRAV28 gene, allele A4, partial |
| 8684 | 21764 |  | 1.38 | 3.4E-01 | AA337063.1 | EST_HUMAN | EST41765 Endometrial tumor Homo sapiens cDNA 5' end |
| 8760 | 21839 | 35380 | 0.71 | 3.4E-01 | L04690.1 | NT | Cricetulus griseus cholesterol 7-alpha-hydroxylase gene, complete cds |
| 9053 | 22132 | 35676 | 1.87 | 3.4E-01 | 9633624 | NT | Bovine enterovirus strain K2577, complete genome |
| 9413 | 22487 | 36051 | 4.12 | 3.4E-01 | P26013 | SWISSPROT | INTEGRIN BETA-8 PRECURSOR |
| 9413 | 22487 | 36052 | 4.12 | 3.4E-01 | P26013 | SWISSPROT | INTEGRIN BETA-8 PRECURSOR |
| 9621 | 22676 |  | 0.57 | 3.4E-01 | AB017510.1 | NT | Ephydatia fluviatilis mRNA for PLC-gammaS, complete cds |
| 9645 | 21088 | 34602 | 4.68 | 3.4E-01 | U19492.1 | NT | Saccharomyces cerevisiae Maf1p (MAF1) gene, complete cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9645 | 21088 | 34603 | 4.68 | 3.4E-01 | U19492.1 | NT | Saccharomyces cerevisiae Maf1p (MAF1) gene, complete cds |
| 9897 | 22937 | 36522 | 0.86 | 3.4E-01 | U68763.1 | NT | Glycine max putative transcription factor SCOF-1 (scof-1) mRNA, complete cds |
| 10093 | 23131 | 36735 | 2.44 | 3.4E-01 | AJ225084.1 | NT | Homo sapiens FAA gene, exon 16, 17 and 18 |
| 10695 | 23728 | | 0.73 | 3.4E-01 | AE004096.1 | NT | Vibrio cholerae chromosome I, section 4 of 251 of the complete chromosome |
| 11267 | 24336 | | 3.26 | 3.4E-01 | AE000881.1 | NT | Methanobacterium thermoautotrophicum from bases 1018444 to 1029212 (section 87 of 148) of the complete genome |
| 11307 | 24372 | 38014 | 2.1 | 3.4E-01 | P06925 | SWISSPROT | PROBABLE E4 PROTEIN |
| 11350 | 24412 | 38066 | 1.86 | 3.4E-01 | AF045981.1 | NT | Rutilus arcasii cytochrome b (cytb) gene, mitochondrial gene encoding mitochondrial protein, partial cds |
| 11561 | 24616 | 38295 | 1.91 | 3.4E-01 | M25856.1 | NT | Human von Willebrand factor gene, exons 36 and 37 |
| 11561 | 24616 | 38296 | 1.91 | 3.4E-01 | M25856.1 | NT | Human von Willebrand factor gene, exons 36 and 37 |
| 11791 | 24781 | 38478 | 1.68 | 3.4E-01 | AB035507.1 | NT | Rattus norvegicus mRNA for s-gicerin/MUC18, complete cds |
| 11817 | 24806 | 38502 | 3.23 | 3.4E-01 | AL161515.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 27 |
| 12078 | 25058 | 38765 | 1.59 | 3.4E-01 | BF061948.1 | EST_HUMAN | 7k69d12.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:3480646 3' |
| 12110 | 25090 | 38793 | 1.65 | 3.4E-01 | Q27546 | SWISSPROT | INOSINE-URIDINE PREFERRING NUCLEOSIDE HYDROLASE (IU-NUCLEOSIDE HYDROLASE) (PURINE NUCLEOSIDASE) |
| 12150 | 25120 | | 2.03 | 3.4E-01 | U93604.1 | NT | Citrus variegation virus putative replicase gene, partial cds |
| 12264 | 25198 | | 1.55 | 3.4E-01 | Z21621.1 | NT | S.cerevisiae RIB5 gene encoding Riboflavin synthase |
| 12367 | 25912 | | 1.16 | 3.4E-01 | AF254351.1 | NT | Schizosaccharomyces pombe Cwf8p (cwf8) gene, complete cds |
| 12489 | 25338 | | 10.71 | 3.4E-01 | L26339.1 | NT | Human autoantigen mRNA, complete cds |
| 12517 | 25944 | | 2.38 | 3.4E-01 | BE218652.1 | EST_HUMAN | hv42h08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3176127 3' similar to contains PTR5.t3 PTR5 repetitive element ; |
| 12579 | 26052 | | 1.79 | 3.4E-01 | 9838361 | NT | Beta vulgaris mitochondrion, complete genome |
| 12700 | 25466 | 32023 | 1.36 | 3.4E-01 | AJ297131.1 | NT | Mus musculus SIL, MAP_17, CYP_a, SCL & CYP_b genes |
| 12954 | 26160 | | 1.96 | 3.4E-01 | AJ288948.1 | NT | Clostridium cellulolyticum partial spoIVB gene and spo0A gene, strain ATCC 35319 |
| 13055 | 25691 | | 2.26 | 3.4E-01 | AF019413.1 | NT | Homo sapiens HLA class III region containing tenascin X (tenascin-X) gene, partial cds; cytochrome P450 21-hydroxylase (CYP21B), complement component C4 (C4B) G11, helicase (SKI2W), RD, complement factor B (Bf), and complement component C2 (C2) genes,> |
| 15 | 13263 | 26253 | 6.72 | 3.3E-01 | X07990.1 | NT | Rhizobium leguminosarum sym plasmid pRL5JI nodX gene |
| 108 | 13263 | 26253 | 3.19 | 3.3E-01 | X07990.1 | NT | Rhizobium leguminosarum sym plasmid pRL5JI nodX gene |
| 461 | 13656 | 26694 | 1.41 | 3.3E-01 | AL161545.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 45 |
| 650 | 13836 | 26863 | 1.97 | 3.3E-01 | 7662485 | NT | Homo sapiens KIAA1100 protein (KIAA1100), mRNA |
| 1227 | 14387 | 27450 | 2.57 | 3.3E-01 | Q12446 | SWISSPROT | PROLINE-RICH PROTEIN LAS17 |
| 1335 | 14492 | 27562 | 3.39 | 3.3E-01 | BF568880.1 | EST_HUMAN | 602184016T1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300251 3' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1636 | 14788 | 27873 | 1.26 | 3.3E-01 | 6753685 | NT | Mus musculus disintegrin 5 (Dtgn5), mRNA |
| 1674 | 14826 | | 1.43 | 3.3E-01 | 6754477 | NT | Mus musculus kappa B and Rss recognition component (Krc), mRNA |
| 1777 | 14926 | | 1.02 | 3.3E-01 | AA332734.1 | EST_HUMAN | EST36722 Embryo, 8 week I Homo sapiens cDNA 5' end |
| 2477 | 15604 | | 6.23 | 3.3E-01 | 4507834 | NT | Homo sapiens uridine monophosphate synthetase (orotate phosphoribosyl transferase and orotidine-5'-decarboxylase) (UMPS) mRNA |
| 3014 | 16190 | 29215 | 1.61 | 3.3E-01 | AJ251805.1 | NT | Bacteriophage phi-YeO3-12 complete genome |
| 3080 | 16256 | | 1.09 | 3.3E-01 | O02743 | SWISSPROT | INTERLEUKIN-12 ALPHA CHAIN PRECURSOR (IL-12A) (CYTOTOXIC LYMPHOCYTE MATURATION FACTOR 35 KD SUBUNIT) (CLMF P35) |
| 3121 | 16297 | 29311 | 0.78 | 3.3E-01 | AJ007932.2 | NT | Streptomyces argillaceus mithramycin biosynthetic genes |
| 3584 | 16749 | 29766 | 1.04 | 3.3E-01 | AB012922.1 | NT | Homo sapiens MTA1-L1 gene, complete cds |
| 3911 | 17070 | 30068 | 2.72 | 3.3E-01 | O84645 | SWISSPROT | EXODEOXYRIBONUCLEASE V BETA CHAIN |
| 3921 | 17080 | 30076 | 0.82 | 3.3E-01 | P22602 | SWISSPROT | GENOME POLYPROTEIN [CONTAINS: N-TERMINAL PROTEIN (P1); HELPER COMPONENT PROTEINASE (HC-PRO); PROTEIN P3] |
| 4072 | 17228 | 30235 | 1.19 | 3.3E-01 | AL161498.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 10 |
| 4108 | 17262 | 30262 | 1.81 | 3.3E-01 | AF200446.1 | NT | Hypoxylon fragiforme chitin synthase gene, partial cds |
| 4487 | 17627 | | 2.37 | 3.3E-01 | D31662.1 | NT | Rattus norvegicus DNA for regucalcin, partial cds |
| 4812 | 17945 | | 1.91 | 3.3E-01 | AI539114.1 | EST_HUMAN | tp78b12.x1 NCI_CGAP_Ut3 Homo sapiens cDNA clone IMAGE:2205407 3' similar to gb:X57522 ANTIGEN PEPTIDE TRANSPORTER 1 (HUMAN); |
| 4843 | 17976 | 30966 | 1.02 | 3.3E-01 | M24461.1 | NT | Human pulmonary surfactant-associated protein SP-B (SFTP3) mRNA, complete cds |
| 4960 | 18089 | 31065 | 1.14 | 3.3E-01 | D64003.1 | NT | Synechocystis sp. PCC6803 complete genome, 22/27, 2755703-2868766 |
| 5439 | 18639 | 31617 | 2.55 | 3.3E-01 | X89819.1 | NT | R.norvegicus mRNA for 3'UTR of ubiquitin-like protein |
| 5439 | 18639 | 31618 | 2.55 | 3.3E-01 | X89819.1 | NT | R.norvegicus mRNA for 3'UTR of ubiquitin-like protein |
| 5907 | 19096 | 32411 | 0.68 | 3.3E-01 | BF213873.1 | EST_HUMAN | 601848090F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4078823 5' |
| 6067 | 19249 | 32576 | 1.37 | 3.3E-01 | BE619650.1 | EST_HUMAN | 601472768T1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3875753 3' |
| 6067 | 19249 | 32577 | 1.37 | 3.3E-01 | BE619650.1 | EST_HUMAN | 601472768T1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3875753 3' |
| 6162 | 19338 | 32684 | 1.29 | 3.3E-01 | P05691 | SWISSPROT | CIRCUMSPOROZOITE PROTEIN (CS) |
| 6932 | 20247 | 33680 | 0.59 | 3.3E-01 | AB034233.1 | NT | Flexibacter litoralis gyrB gene for DNA gyrase B subunit, partial cds |
| 6932 | 20247 | 33681 | 0.59 | 3.3E-01 | AB034233.1 | NT | Flexibacter litoralis gyrB gene for DNA gyrase B subunit, partial cds |
| 7029 | 20165 | 33586 | 4.63 | 3.3E-01 | AI628131.1 | EST_HUMAN | ty84h01.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2285809 3' similar to contains Alu repetitive element;contains element L1 repetitive element ; |
| 7029 | 20165 | 33587 | 4.63 | 3.3E-01 | AI628131.1 | EST_HUMAN | ty84h01.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2285809 3' similar to contains Alu repetitive element;contains element L1 repetitive element ; |
| 7961 | 21011 | 34521 | 1.9 | 3.3E-01 | N85146.1 | EST_HUMAN | J2498F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone J2498 5' similar to TEGT |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8759 | 21838 | 35379 | 23.1 | 3.3E-01 | BF683954.1 | EST_HUMAN | 602140372F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4301800 5' |
| 8926 | 22005 | 35544 | 0.73 | 3.3E-01 | BF210322.1 | EST_HUMAN | 601873281F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4097180 5' |
| 9314 | 22390 | 35941 | 0.83 | 3.3E-01 | Q62925 | SWISSPROT | MITOGEN-ACTIVATED PROTEIN KINASE KINASE KINASE 1 (MAPK/ERK KINASE KINASE 1) (MEK KINASE 1) (MEKK 1) |
| 9578 | 22720 | 36289 | 1.16 | 3.3E-01 | BE828461.1 | EST_HUMAN | CM3-ET0041-180500-187-d10 ET0041 Homo sapiens cDNA |
| 9578 | 22720 | 36290 | 1.16 | 3.3E-01 | BE828461.1 | EST_HUMAN | CM3-ET0041-180500-187-d10 ET0041 Homo sapiens cDNA |
| 9711 | 22760 | 36330 | 2.9 | 3.3E-01 | N69866.1 | EST_HUMAN | za67h01.s1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:297649 3' |
| 9752 | 22690 | 36260 | 2.81 | 3.3E-01 | BF376745.1 | EST_HUMAN | RC4-TN0077-250800-011-g04 TN0077 Homo sapiens cDNA |
| 10196 | 23233 |  | 2.08 | 3.3E-01 | L41044.1 | NT | Homo sapiens high-mobility group phosphoprotein (HMGI-C) gene, exons 1-3, complete cds |
| 10865 | 23897 | 37520 | 0.74 | 3.3E-01 | AE000631.1 | NT | Helicobacter pylori 26695 section 109 of 134 of the complete genome |
| 10960 | 24041 | 37675 | 3.35 | 3.3E-01 | X63953.1 | NT | D.mauritiana Adh gene |
| 10960 | 24041 | 37676 | 3.35 | 3.3E-01 | X63953.1 | NT | D.mauritiana Adh gene |
| 11279 | 24345 |  | 2.1 | 3.3E-01 | BF526499.1 | EST_HUMAN | 602070802F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4213585 5' |
| 11507 | 24565 | 38242 | 9.35 | 3.3E-01 | BE219351.1 | EST_HUMAN | hv51g02.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3176978 3' |
| 11626 | 24706 | 38399 | 3.7 | 3.3E-01 | P47953 | SWISSPROT | GALECTIN-3 (GALACTOSE-SPECIFIC LECTIN 3) (MAC-2 ANTIGEN) (IGE-BINDING PROTEIN) (35 KD LECTIN) (CARBOHYDRATE BINDING PROTEIN 35) (CBP 35) (LAMININ-BINDING PROTEIN) (LECTIN L-29) (CBP30) |
| 12018 | 25002 |  | 2.8 | 3.3E-01 | AA806621.1 | EST_HUMAN | ob71g02.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1336850 3' |
| 12036 | 13253 | 26253 | 2.33 | 3.3E-01 | X07990.1 | NT | Rhizobium leguminosarum sym plasmid pRL5JI nodX gene |
| 12250 | 25190 | 38357 | 1.85 | 3.3E-01 | 6598319 | NT | Homo sapiens aldehyde oxidase 1 (AOX1), mRNA |
| 13044 | 25685 |  | 22.03 | 3.3E-01 | AP000002.1 | NT | Pyrococcus horikoshii OT3 genomic DNA, 287001-544000 nt. position (2/7) |
| 469 | 13664 |  | 2.5 | 3.2E-01 | AF018261.1 | NT | Rattus norvegicus EH domain binding protein Epsin mRNA, complete cds |
| 736 | 13918 |  | 0.76 | 3.2E-01 | AL161561.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 61 |
| 1188 | 14350 | 27408 | 23.03 | 3.2E-01 | AF047013.1 | NT | Fusarium poae virus 1 RNA2 putative RNA dependent RNA polymerase gene, complete cds |
| 1311 | 14467 | 27535 | 1.48 | 3.2E-01 | Z50202.1 | NT | P.vulgaris arc5-1 gene |
| 1421 | 14575 | 27648 | 6.74 | 3.2E-01 | Q48624 | SWISSPROT | LACTOSE PERMEASE (LACTOSE-PROTON SYMPORT) (LACTOSE TRANSPORT PROTEIN) |
| 1663 | 14815 |  | 1 | 3.2E-01 | AF209730.1 | NT | Arabidopsis thaliana cultivar Columbia RPP13 (RPP13) gene, complete cds |
| 1815 | 14964 | 28057 | 1.3 | 3.2E-01 | Z36041.1 | NT | S.cerevisiae chromosome II reading frame ORF YBR172c |
| 1825 | 14974 | 28069 | 6.42 | 3.2E-01 | AW957194.1 | EST_HUMAN | EST369264 MAGE resequences, MAGD Homo sapiens cDNA |
| 1825 | 14974 | 28070 | 6.42 | 3.2E-01 | AW957194.1 | EST_HUMAN | EST369264 MAGE resequences, MAGD Homo sapiens cDNA |
| 1891 | 15035 | 28142 | 1.25 | 3.2E-01 | AL111655.1 | NT | Botrytis cinerea strain T4 cDNA library under conditions of nitrogen deprivation |
| 2227 | 15361 | 28490 | 3.22 | 3.2E-01 | BF203817.1 | EST_HUMAN | 601868804F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4111512 5' |
| 2606 | 15729 |  | 2.83 | 3.2E-01 | 7710079 | NT | Mus musculus Pbx/knotted 1 homeobox (Pknox1), mRNA |
| 2774 | 15889 | 29000 | 1.23 | 3.2E-01 | AF060568.1 | NT | Homo sapiens promyelocytic leukemia zinc finger protein (PLZF) gene, complete cds |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3696 | 16857 | | 0.76 | 3.2E-01 | D10872.1 | NT | Humam h NAT allele 3-2 gene for arylamine N-acetyltransferase |
| 4061 | 17217 | | 0.93 | 3.2E-01 | AL161546.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 46 |
| 4514 | 17653 | 30641 | 1.37 | 3.2E-01 | M18818.1 | NT | Rabbit beta-like globin gene cluster encoding the epsilon, gamma, delta (pseudogene) and beta globin polypeptides, complete cds |
| 4621 | 17758 | 30740 | 1.35 | 3.2E-01 | Q10268 | SWISSPROT | HYPOTHETICAL 81.7 KD PROTEIN C13G7.04C IN CHROMOSOME I PRECURSOR |
| 4860 | 17993 | | 6.99 | 3.2E-01 | BF693617.1 | EST_HUMAN | 602081972F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4246505 5' |
| 5386 | 18588 | 31560 | 2.93 | 3.2E-01 | BE173964.1 | EST_HUMAN | CM0-HT0569-060300-269-f10 HT0569 Homo sapiens cDNA |
| 6078 | 19260 | 32589 | 1.08 | 3.2E-01 | L27221.1 | NT | Giardia intestinalis pyruvate:flavodoxin oxidoreductase and flanking genes |
| 6433 | 19601 | 32965 | 0.73 | 3.2E-01 | AF016494.1 | NT | Fugu rubripes gamma-aminobutyric acid receptor beta subunit gene, partial cds; 55kd erythrocyte membrane protein (P55), synaptic vesicle-associated integral membrane protein (VAMP-1), procollagen C-proteinase enhancer protein (PCOLCE) genes, complete c> |
| 6729 | 19885 | 33277 | 0.65 | 3.2E-01 | AV718037.1 | EST_HUMAN | AV718037 FHTA Homo sapiens cDNA clone FHTAABH01 5' |
| 6872 | 20024 | | 1.17 | 3.2E-01 | AB002359.1 | NT | Human mRNA for KIAA0361 gene, KIAA0361 protein |
| 8040 | 21123 | 34643 | 0.52 | 3.2E-01 | AJ277661.1 | NT | Homo sapiens partial LMO1 gene for LIM domain only 1 protein, exon 1 |
| 8365 | 21446 | 34969 | 1.5 | 3.2E-01 | M60266.1 | NT | Rat ISO-atrial natriuretic factor gene, complete cds |
| 8461 | 21542 | 35072 | 0.67 | 3.2E-01 | AJ231001.1 | NT | Rattus norvegicus repeat; map NOS-D12Wox1 |
| 8562 | 21643 | 35182 | 15.01 | 3.2E-01 | X02508.1 | NT | H.sapiens gene fragment for acetylcholine receptor (AChR) alpha subunit exons 8, 9 and 3' flanking region |
| 8565 | 21646 | 35187 | 14.52 | 3.2E-01 | BF311635.1 | EST_HUMAN | 601897107F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4126633 5' |
| 8656 | 21736 | | 1.24 | 3.2E-01 | AL161574.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 70 |
| 8698 | 21778 | 35310 | 0.69 | 3.2E-01 | BF246771.1 | EST_HUMAN | 601855580F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4075627 5' |
| 8698 | 21778 | 35311 | 0.69 | 3.2E-01 | BF246771.1 | EST_HUMAN | 601855580F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4075627 5' |
| 8771 | 21850 | 35391 | 1.14 | 3.2E-01 | AE002015.1 | NT | Deinococcus radiodurans R1 section 152 of 229 of the complete chromosome 1 |
| 8871 | 21950 | 35485 | 0.86 | 3.2E-01 | U51026.1 | NT | Oryctolagus cuniculus Ig H-chain pseudogene, V-region (VH6-a2) gene, partial cds |
| 8871 | 21950 | 35486 | 0.86 | 3.2E-01 | U51026.1 | NT | Oryctolagus cuniculus Ig H-chain pseudogene, V-region (VH6-a2) gene, partial cds |
| 9267 | 22344 | 35895 | 0.67 | 3.2E-01 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 9278 | 22354 | | 2.54 | 3.2E-01 | M86511.1 | NT | Human monocyte antigen CD14 (CD14) mRNA, complete cds |
| 9351 | 22426 | 35983 | 0.61 | 3.2E-01 | AF041829.1 | NT | Homo sapiens 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase (PF2K) gene, exons 12 and 13 |
| 9351 | 22426 | 35984 | 0.61 | 3.2E-01 | AF041829.1 | NT | Homo sapiens 6-phosphofructo-2-kinase/fructose-2,6-bisphosphatase (PF2K) gene, exons 12 and 13 |
| 10198 | 23235 | 36824 | 4.33 | 3.2E-01 | U44914.1 | NT | Borrelia burgdorferi plasmid cp32-2, erpC and erpD genes, complete cds; and unknown genes |
| 10402 | 23437 | 37044 | 0.62 | 3.2E-01 | BE326230.1 | EST_HUMAN | hv99f05.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3181569 3' |
| 10518 | 23553 | | 3.94 | 3.2E-01 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10905 | 23988 | 37620 | 3.05 | 3.2E-01 | T06813.1 | EST_HUMAN | EST04702 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBDZ21 |
| 12289 | 26083 | | 3.11 | 3.2E-01 | L07288.1 | NT | Drosophila melanogaster laminin A (Lam-A) mRNA, complete cds |
| 12861 | 25572 | | 3.26 | 3.2E-01 | O83217 | SWISSPROT | ELONGATION FACTOR TU (EF-TU) |
| 12969 | 25891 | | 2.2 | 3.2E-01 | AF157625.1 | NT | Bos taurus inositol 1,4,5-trisphosphate receptor type I mRNA, complete cds |
| 13018 | 25669 | | 2.07 | 3.2E-01 | L39874.1 | NT | Homo sapiens deoxycytidylate deaminase gene, complete cds |
| 13089 | 26129 | 31545 | 1.24 | 3.2E-01 | BE385776.1 | EST_HUMAN | 601275480F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3616746 5' |
| 2736 | 15853 | 28967 | 3.39 | 3.1E-01 | R18051.1 | EST_HUMAN | ye90h06.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:125051 5' similar to gb:M64241 QM PROTEIN (HUMAN); |
| 2762 | 16001 | 28985 | 3.77 | 3.1E-01 | 7661971 | NT | Homo sapiens KIAA0174 gene product (KIAA0174), mRNA |
| 2762 | 16001 | 28986 | 3.77 | 3.1E-01 | 7661971 | NT | Homo sapiens KIAA0174 gene product (KIAA0174), mRNA |
| 2920 | 16098 | | 1.28 | 3.1E-01 | AW629036.1 | EST_HUMAN | hi46h08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2975391 3' |
| 3242 | 16416 | | 3.51 | 3.1E-01 | AB029069.1 | NT | Mus musculus gene for Ser/Thr kinase KKIAMRE, exon 6 |
| 4016 | 17173 | 30181 | 0.94 | 3.1E-01 | AJ251586.1 | NT | Daucus carota mRNA for transcription factor E2F (E2F gene) |
| 5077 | 18205 | 31177 | 0.7 | 3.1E-01 | AE003984.1 | NT | Xylella fastidiosa, section 130 of 229 of the complete genome |
| 5595 | 18790 | 31838 | 9.24 | 3.1E-01 | AF176111.1 | NT | Homo sapiens hepatocyte nuclear factor-3 alpha (HNF3A) gene, exon 1 |
| 5717 | 18910 | 32205 | 0.7 | 3.1E-01 | P44132 | SWISSPROT | HYPOTHETICAL PROTEIN HI1236 |
| 5718 | 18911 | 32206 | 0.75 | 3.1E-01 | Z74883.1 | NT | S.cerevisiae chromosome XV reading frame ORF YOL141w |
| 5729 | 18922 | | 0.83 | 3.1E-01 | Y13278.1 | NT | Mus musculus mRNA for polycystin |
| 5892 | 19080 | 32390 | 2.65 | 3.1E-01 | AF184122.1 | NT | Homo sapiens filamin 2 (FLN2) gene, exons 10 through 22 |
| 6595 | 19755 | 33141 | 1.3 | 3.1E-01 | AW983549.1 | EST_HUMAN | RC3-HN0001-310300-011-b04 HN0001 Homo sapiens cDNA |
| 6663 | 19822 | 33209 | 0.96 | 3.1E-01 | AI264458.1 | EST_HUMAN | ql39d01.x1 NCI_CGAP_Co8 Homo sapiens cDNA clone IMAGE:1874689 3' |
| 6821 | 19974 | 33382 | 0.79 | 3.1E-01 | X71887.1 | NT | H.sapiens gene for immunoglobulin kappa light chain variable region A8 and A9 |
| 6905 | 20220 | | 0.69 | 3.1E-01 | AW377354.1 | EST_HUMAN | MR2-CT0222-281099-005-h05 CT0222 Homo sapiens cDNA |
| 7109 | 25801 | 31491 | 2.32 | 3.1E-01 | BE737392.1 | EST_HUMAN | 601306121F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3640420 5' |
| 7856 | 20911 | 34416 | 0.7 | 3.1E-01 | 4885390 | NT | Homo sapiens hyaluronan synthase 2 (HAS2), mRNA |
| 8849 | 21928 | 35467 | 0.84 | 3.1E-01 | R45318.1 | EST_HUMAN | yg46f01.s1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:35639 3' |
| 10106 | 23144 | 36742 | 0.68 | 3.1E-01 | 6679322 | NT | Mus musculus phosphatidylinositol-4-phosphate 5-kinase, type 1 gamma (Pip5k1c), mRNA |
| 10272 | 23307 | 36903 | 1.04 | 3.1E-01 | BF696639.1 | EST_HUMAN | 602124743F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4281611 5' |
| 10272 | 23307 | 36904 | 1.04 | 3.1E-01 | BF696639.1 | EST_HUMAN | 602124743F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4281611 5' |
| 10334 | 23369 | 36979 | 1.68 | 3.1E-01 | AI244001.1 | EST_HUMAN | qj61e11.x1 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1863980 3' similar to gb:S55700 HYDROXYMETHYLGLUTARYL-COA LYASE PRECURSOR (HUMAN); |
| 10510 | 23545 | | 0.98 | 3.1E-01 | T55325.1 | EST_HUMAN | yb47h08.s1 Stratagene fetal spleen (#937205) Homo sapiens cDNA clone IMAGE:74367 3' similar to similar to gb:M91036_rna2 HEMOGLOBIN GAMMA-A AND GAMMA-G CHAINS (HUMAN) |
| 11076 | 24151 | 37789 | 1.84 | 3.1E-01 | BF216117.1 | EST_HUMAN | 601883592F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4095814 5' |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11474 | 24533 | 38203 | 1.62 | 3.1E-01 | AW074910.1 | EST_HUMAN | xa62g09.x1 NCI_CGAP_HSC2 Homo sapiens cDNA clone IMAGE:2571424 3' |
| 11827 | 24816 | 38507 | 2.08 | 3.1E-01 | 7662291 | NT | Homo sapiens KIAA0764 gene product (KIAA0764), mRNA |
| 11828 | 24817 | 38508 | 1.67 | 3.1E-01 | R55735.1 | EST_HUMAN | yg89b05.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:40722 5' similar to contains Alu repetitive element; |
| 12123 | 25103 | | 1.3 | 3.1E-01 | AF195953.1 | NT | Homo sapiens membrane-bound aminopeptidase P (XNPEP2) gene, complete cds |
| 12418 | 25298 | | 1.22 | 3.1E-01 | AF294308.1 | NT | Anolis opalinus isolate QS NADH dehydrogenase subunit 2 (ND2) gene, complete cds; mitochondrial gene for mitochondrial product |
| 12455 | 25319 | | 1.73 | 3.1E-01 | AF304162.1 | NT | Stizostedion vitreum 40S ribosomal protein S11 mRNA, partial cds |
| 12613 | 25412 | | 3.73 | 3.1E-01 | AF195953.1 | NT | Homo sapiens membrane-bound aminopeptidase P (XNPEP2) gene, complete cds |
| 13028 | 25677 | | 3.82 | 3.1E-01 | AF196779.1 | NT | Homo sapiens transcription factor IGHM enhancer 3, JM11 protein, JM4 protein, JM5 protein, T64 protein, JM10 protein, A4 differentiation-dependent protein, triple LIM domain protein 6, and synaptophysin genes, complete cds; and L-type calcium channel a> |
| 13068 | 26123 | | 1.22 | 3.1E-01 | 10946623 | NT | Mus musculus peptidoglycan recognition protein-like (Pglyrpl-pending), mRNA |
| 74 | 15979 | 26336 | 1.65 | 3.0E-01 | 6755083 | NT | Mus musculus protein kinase C, epsilon (Pkce), mRNA |
| 264 | 13483 | 26515 | 11.52 | 3.0E-01 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 1251 | 14410 | 27472 | 2.35 | 3.0E-01 | AW300400.1 | EST_HUMAN | xs63f08.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2774343 3' |
| 1537 | 14690 | 27769 | 5.77 | 3.0E-01 | AJ006755.1 | NT | Balaenoptera physalus gene encoding atrial natriuretic peptide |
| 1838 | 14984 | 28084 | 1.2 | 3.0E-01 | X99082.1 | NT | A.immersus putative gene encoding integrase, Mars2 (RP) |
| 3069 | 16245 | | 0.8 | 3.0E-01 | AB008677.1 | NT | Bos taurus mRNA for UDP-glucuronosyltransferase, complete cds |
| 3283 | 16457 | | 1.33 | 3.0E-01 | AB030481.1 | NT | Corynebacterium sp. ALY-1 alyPG gene for polyguluronate lyase, complete cds |
| 3968 | 17126 | 30129 | 1.58 | 3.0E-01 | AW817785.1 | EST_HUMAN | PM1-ST0262-261199-001-g01 ST0262 Homo sapiens cDNA |
| 4082 | 17237 | 30243 | 1.16 | 3.0E-01 | AJ271736.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 2/2 |
| 4636 | 17772 | 30752 | 1.79 | 3.0E-01 | AJ006755.1 | NT | Balaenoptera physalus gene encoding atrial natriuretic peptide |
| 5258 | 16649 | 29665 | 2.33 | 3.0E-01 | P23825 | SWISSPROT | GATA BINDING FACTOR-3 (TRANSCRIPTION FACTOR NF-E1C) (GATA-3) |
| 5467 | 18667 | 31646 | 5.1 | 3.0E-01 | BE741629.1 | EST_HUMAN | 601594960F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3948734 5' |
| 5548 | 18745 | 31780 | 0.64 | 3.0E-01 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 5552 | 18749 | 31785 | 1 | 3.0E-01 | AF229247.1 | NT | Cantagalo orthopoxvirus hemagglutinin gene, complete cds |
| 5621 | 18815 | 31883 | 4.01 | 3.0E-01 | BE693575.1 | EST_HUMAN | RC3-BT0333-180700-111-a03 BT0333 Homo sapiens cDNA |
| 5621 | 18815 | 31884 | 4.01 | 3.0E-01 | BE693575.1 | EST_HUMAN | RC3-BT0333-180700-111-a03 BT0333 Homo sapiens cDNA |
| 5658 | 18852 | 32135 | 3.87 | 3.0E-01 | U01247.1 | NT | Mus musculus 129/sv Clara cell 10 kd protein (mCC10) gene, complete cds |
| 6970 | 20198 | 33624 | 2.82 | 3.0E-01 | D16313.1 | NT | Mouse cytokeratin 15 gene, complete cds |
| 6999 | 18518 | 31511 | 0.76 | 3.0E-01 | U02369.1 | NT | Strongylocentrotus purpuratus 34/67 kDa laminin-binding protein mRNA, partial cds |
| 7065 | 20118 | 33532 | 1.15 | 3.0E-01 | AF229247.1 | NT | Cantagalo orthopoxvirus hemagglutinin gene, complete cds |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7270 | 20353 | 33806 | 0.96 | 3.0E-01 | AL163206.2 | NT | Homo sapiens chromosome 21 segment HS21C006 |
| 7481 | 20556 | 34028 | 4.3 | 3.0E-01 | 10947007 | NT | Mus musculus midnolin (Midn-pending), mRNA |
| 7670 | 20736 | 34214 | 1.51 | 3.0E-01 | AF071810.1 | NT | Streptococcus pneumoniae strain DBL6 PspA (pspA) gene, partial cds |
| 8111 | 21193 | 34713 | 1.34 | 3.0E-01 | AE001755.1 | NT | Thermotoga maritima section 67 of 136 of the complete genome |
| 8568 | 21649 | | 3.1 | 3.0E-01 | 9910161 | NT | Mus musculus C-type (calcium dependent, carbohydrate recognition domain) lectin, superfamily member 9 (Clecsf9), mRNA |
| 8658 | 21738 | 35279 | 0.48 | 3.0E-01 | Z70200.1 | NT | H.sapiens gene for U5 snRNP-specific 200kD protein |
| 8671 | 21751 | 35288 | 1.23 | 3.0E-01 | BE666083.1 | EST_HUMAN | 601339079F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3681594 5' |
| 9029 | 22108 | 35649 | 0.69 | 3.0E-01 | AF141676.1 | NT | Streptomyces sulfonofaciens isopenicillin N synthase (pcbC) gene, partial cds |
| 9072 | 22151 | | 0.82 | 3.0E-01 | 7661685 | NT | Homo sapiens DKFZP586M0122 protein (DKFZP586M0122), mRNA |
| 9419 | 22493 | 36059 | 1.09 | 3.0E-01 | AF220507.1 | NT | Anabaena PCC7120 cytosine-specific DNA methyltransferase (dmnB) gene, complete cds; putative anthranilate phosphoribosyltransferase gene, partial cds; and unknown gene |
| 9773 | 22813 | 36391 | 0.64 | 3.0E-01 | P76389 | SWISSPROT | HYPOTHETICAL 59.5 KD PROTEIN IN WZA-ASMA INTERGENIC REGION |
| 9927 | 22967 | | 0.46 | 3.0E-01 | D90904.1 | NT | Synechocystis sp. PCC6803 complete genome, 6/27, 630555-781448 |
| 10173 | 23210 | 36803 | 0.84 | 3.0E-01 | BF574612.1 | EST_HUMAN | 602133271F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4288336 5' |
| 10346 | 23381 | 36992 | 0.45 | 3.0E-01 | AF152598.3 | NT | Actinobacillus actinomycetemcomitans TadA (tadA), TadB (tadB), TadC (tadC), TadD (tadD), TadE (tadE), TadF (tadF), and TadG (tadG) genes, complete cds |
| 10346 | 23381 | 36993 | 0.45 | 3.0E-01 | AF152598.3 | NT | Actinobacillus actinomycetemcomitans TadA (tadA), TadB (tadB), TadC (tadC), TadD (tadD), TadE (tadE), TadF (tadF), and TadG (tadG) genes, complete cds |
| 10606 | 23640 | 37248 | 0.6 | 3.0E-01 | AW118111.1 | EST_HUMAN | xe03d10.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2606035 3' |
| 10608 | 23642 | 37250 | 2.51 | 3.0E-01 | AB030231.1 | NT | Aspergillus oryzae bipA gene for ER chaperone BiP, complete cds |
| 10629 | 23663 | 37271 | 0.76 | 3.0E-01 | BF683841.1 | EST_HUMAN | 602140133F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4301097 5' |
| 10629 | 23663 | 37272 | 0.76 | 3.0E-01 | BF683841.1 | EST_HUMAN | 602140133F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4301097 5' |
| 12067 | 25048 | 38755 | 2.16 | 3.0E-01 | H51029.1 | EST_HUMAN | yp84b10.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:194107 5' |
| 12067 | 25048 | 38756 | 2.16 | 3.0E-01 | H51029.1 | EST_HUMAN | yp84b10.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:194107 5' |
| 12470 | 25324 | | 1.3 | 3.0E-01 | P54660 | SWISSPROT | PONTICULIN PRECURSOR |
| 12731 | 26062 | | 1.88 | 3.0E-01 | AJ297631.1 | NT | Rattus norvegicus mRNA for glyceraldehyde-3-phosphate dehydrogenase type 2 (gapdh-2 gene) |
| 13081 | 26121 | | 4.49 | 3.0E-01 | 6677766 | NT | Mus musculus ribose 5-phosphate isomerase A (Rpia), mRNA |
| 1771 | 14920 | | 0.94 | 2.9E-01 | AJ249895.1 | NT | Mus musculus mas proto-oncogene and Igf2r gene for insulin-like growth factor type 2 and L41ps and Au76 pseudogenes |
| 1930 | 15073 | 28176 | 0.94 | 2.9E-01 | 5174502 | NT | Homo sapiens membrane component, chromosome 11, surface marker 1 (M11S1) mRNA |
| 2080 | 15220 | 28340 | 2.36 | 2.9E-01 | AE000736.1 | NT | Aquifex aeolicus section 68 of 109 of the complete genome |
| 2322 | 15454 | 28585 | 1.01 | 2.9E-01 | AF222718.1 | NT | Chrysodidymus synuroideus mitochondrion, complete genome |
| 3253 | 16427 | 29445 | 0.96 | 2.9E-01 | AF078111.1 | NT | Xenopus laevis transcription factor E2F mRNA, complete cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3323 | 16496 | 29513 | 2.88 | 2.9E-01 | AW754239.1 | EST_HUMAN | PM1-CT0326-171299-001-f12 CT0326 Homo sapiens cDNA |
| 3323 | 16496 | 29514 | 2.88 | 2.9E-01 | AW754239.1 | EST_HUMAN | PM1-CT0326-171299-001-f12 CT0326 Homo sapiens cDNA |
| 4003 | 17160 | 30166 | 1.12 | 2.9E-01 | AI610836.1 | EST_HUMAN | tp21a11.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2188412 3' similar to gb:D15050 NIL-2-A ZINC FINGER PROTEIN (HUMAN);contains element L1 repetitive element ; |
| 4045 | 17201 | 30212 | 0.61 | 2.9E-01 | AI769472.1 | EST_HUMAN | wj14d10.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2402803 3' similar to WP:C34F6.7 CE15676 ; |
| 4183 | 17333 | 30325 | 0.61 | 2.9E-01 | AB016426.1 | NT | Cavia porcellus mRNA for glutathione s-transferase, complete cds |
| 4195 | 17345 | | 0.79 | 2.9E-01 | AW002902.1 | EST_HUMAN | wr02f10.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2480395 3' |
| 4608 | 17745 | 30724 | 0.98 | 2.9E-01 | AA284468.1 | EST_HUMAN | zs57d12.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:701591 5' similar to contains Alu repetitive element; |
| 4805 | 17940 | | 0.73 | 2.9E-01 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 4957 | 18087 | 31063 | 0.59 | 2.9E-01 | AB019029.1 | NT | Mus musculus gene, complete cds, similar to EXLM1 |
| 5222 | 18344 | | 0.99 | 2.9E-01 | AI670899.1 | EST_HUMAN | wa06f03.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2297309 3' similar to contains L1.t2 L1 repetitive element ; |
| 5320 | 18087 | 31063 | 0.65 | 2.9E-01 | AB019029.1 | NT | Mus musculus gene, complete cds, similar to EXLM1 |
| 5372 | 18676 | | 1.59 | 2.9E-01 | R37485.1 | EST_HUMAN | yf77e12.s1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:28291 3' |
| 5511 | 20137 | 33555 | 0.98 | 2.9E-01 | AF321001.1 | NT | Suaeda maritima subsp. salsa S-adenosylmethionine sythetase 2 mRNA, complete cds |
| 5884 | 19073 | 32381 | 5.27 | 2.9E-01 | X56098.1 | NT | B.subtilis levanase operon levD, levE, levF, levG and sacC (partial) genes for fructose phosphotransferase system polypeptides P16,18,28,30 and levanase |
| 5884 | 19073 | 32382 | 5.27 | 2.9E-01 | X56098.1 | NT | B.subtilis levanase operon levD, levE, levF, levG and sacC (partial) genes for fructose phosphotransferase system polypeptides P16,18,28,30 and levanase |
| 5897 | 19085 | 32397 | 5.53 | 2.9E-01 | 6679662 | NT | Mus musculus Eph receptor A8 (Epha8), mRNA |
| 6181 | 19357 | 32705 | 1.55 | 2.9E-01 | AA418145.1 | EST_HUMAN | zv97b12.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:767711 5' |
| 6411 | 19580 | 32941 | 1.07 | 2.9E-01 | AI797128.1 | EST_HUMAN | we27c05.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2342312 3' similar to contains L1.t1 L1 repetitive element ; |
| 6456 | 19622 | 32986 | 2.22 | 2.9E-01 | U03420.1 | NT | Bos taurus myosin I mRNA, complete cds |
| 7001 | 20137 | 33555 | 0.71 | 2.9E-01 | AF321001.1 | NT | Suaeda maritima subsp. salsa S-adenosylmethionine sythetase 2 mRNA, complete cds |
| 7126 | 18552 | 31466 | 1.4 | 2.9E-01 | AF142329.1 | NT | Mus musculus Fliih protein (Fliih) gene, complete cds; and Ligh protein (Ligh) gene, partial cds |
| 7246 | 20328 | 33773 | 3.11 | 2.9E-01 | Q04399 | SWISSPROT | PUTATIVE MULTICOPPER OXIDASE YDR506C |
| 7310 | 20392 | 33852 | 1.54 | 2.9E-01 | AF100956.1 | NT | Mus musculus major histocompatibility locus class II region; Fas-binding protein Daxx (DAXX) gene, partial cds; Bing1 (BING1), tapasin (tapasin), RalGDS-like factor (RLF), KE2 (KE2), BING4 (BING4), beta1, 3-galactosyl transferase (beta1,3-galactosyl tr> |
| 8104 | 21186 | 34705 | 1.61 | 2.9E-01 | BE540422.1 | EST_HUMAN | 601065830F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3452287 5' |
| 8104 | 21186 | 34706 | 1.61 | 2.9E-01 | BE540422.1 | EST_HUMAN | 601065830F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3452287 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8343 | 21424 | 34949 | 0.64 | 2.9E-01 | AJ237937.1 | NT | Bos taurus partial stat5A gene, exons 5-19 |
| 8343 | 21424 | 34950 | 0.64 | 2.9E-01 | AJ237937.1 | NT | Bos taurus partial stat5A gene, exons 5-19 |
| 8356 | 21437 |  | 0.75 | 2.9E-01 | BF217743.1 | EST_HUMAN | 601882570F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4095113 5' |
| 8534 | 21615 |  | 0.53 | 2.9E-01 | AF197456.1 | NT | Buchnera aphidicola plasmid pLeu isolate MI 2-isopropylmaltate synthase (leuA) gene, partial cds; 3-isopropylmaltate dehydrogenase (leuB) gene, complete cds; and isopropylmaltate dehydratase subunit (leuC) gene, partial cds |
| 8794 | 21873 | 35412 | 0.82 | 2.9E-01 | AU150910.1 | EST_HUMAN | AU150910 NT2RP2 Homo sapiens cDNA clone NT2RP2003901 3' |
| 9125 | 22204 | 35747 | 1.09 | 2.9E-01 | AF225908.1 | NT | Arabidopsis thaliana sulfonylurea receptor-like protein mRNA, complete cds |
| 9233 | 22311 | 35853 | 0.81 | 2.9E-01 | M22452.1 | NT | Baboon lymphocyte homing/adhesion receptor mRNA, complete cds |
| 9447 | 22563 | 36125 | 0.96 | 2.9E-01 | AJ248287.1 | NT | Pyrococcus abyssi complete genome; segment 5/6 |
| 9447 | 22563 | 36126 | 0.96 | 2.9E-01 | AJ248287.1 | NT | Pyrococcus abyssi complete genome; segment 5/6 |
| 10405 | 23440 | 37047 | 0.46 | 2.9E-01 | AW294100.1 | EST_HUMAN | UI-H-BI2-ahg-b-02-0-UI.s1 NCI_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2726714 3' |
| 10405 | 23440 | 37048 | 0.46 | 2.9E-01 | AW294100.1 | EST_HUMAN | UI-H-BI2-ahg-b-02-0-UI.s1 NCI_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2726714 3' |
| 11133 | 24205 | 37830 | 1.94 | 2.9E-01 | AF128843.1 | NT | Trypanosoma cruzi stage-specific surface glycoprotein gp82 (gp82) mRNA, partial cds |
| 11433 | 24494 | 38159 | 1.79 | 2.9E-01 | V01394.1 | NT | Torpedo californica mRNA encoding acetylcholine receptor gamma subunit |
| 11433 | 24494 | 38160 | 1.79 | 2.9E-01 | V01394.1 | NT | Torpedo californica mRNA encoding acetylcholine receptor gamma subunit |
| 11881 | 24869 | 38566 | 2.71 | 2.9E-01 | AA935373.1 | EST_HUMAN | ny35h02.s1 NCI_CGAP_Pr12 Homo sapiens cDNA clone IMAGE:1273779 similar to contains LTR8.t2 LTR8 repetitive element ; |
| 11886 | 24874 | 38571 | 3.12 | 2.9E-01 | AL139078.2 | NT | Campylobacter jejuni NCTC11168 complete genome; segment 5/6 |
| 11900 | 24888 | 38587 | 2.09 | 2.9E-01 | U35025.1 | NT | Rattus norvegicus activin receptor-like kinase 7 (ALK7) mRNA, complete cds |
| 11900 | 24888 | 38588 | 2.09 | 2.9E-01 | U35025.1 | NT | Rattus norvegicus activin receptor-like kinase 7 (ALK7) mRNA, complete cds |
| 12677 | 25452 | 32017 | 1.85 | 2.9E-01 | AW005671.1 | EST_HUMAN | wz88f05.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2565921 3' similar to contains element MER29 repetitive element ; |
| 12774 | 25516 |  | 1.89 | 2.9E-01 | V00202.1 | NT | D. melanogaster: part of the 44D cuticle gene cluster encoding cuticle gene I |
| 12777 | 25519 | 32001 | 2.23 | 2.9E-01 | AF092453.1 | NT | Homo sapiens TNF-a-inducible RNA binding protein (TIRP) gene, complete cds |
| 13125 | 25734 | 31944 | 1.24 | 2.9E-01 | Y08937.1 | NT | Chlamydomonas reinhardtii mRNA for nitrite reductase structural locus |
| 13125 | 25734 | 31945 | 1.24 | 2.9E-01 | Y08937.1 | NT | Chlamydomonas reinhardtii mRNA for nitrite reductase structural locus |
| 13204 | 25785 | 31919 | 1.4 | 2.9E-01 | AF200418.1 | NT | Callinectes sapidus cadmium-inducible metallothionein CdMT-I mRNA, complete cds |
| 582 | 13774 |  | 2.04 | 2.8E-01 | U67136.1 | NT | Rattus norvegicus A-kinase anchoring protein AKAP150 mRNA, complete cds |
| 587 | 13778 |  | 1.96 | 2.8E-01 | L28145.1 | NT | Prune dwarf virus movement protein, complete cds; coat protein, complete cds |
| 1107 | 14272 | 27331 | 3.34 | 2.8E-01 | AF168050.1 | NT | Guira guira oocyte maturation factor Mos (c-mos) gene, partial cds |
| 1306 | 14462 | 27529 | 2.19 | 2.8E-01 | BE313442.1 | EST_HUMAN | 601148733F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3163688 5' |
| 1306 | 14462 | 27530 | 2.19 | 2.8E-01 | BE313442.1 | EST_HUMAN | 601148733F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3163688 5' |
| 1319 | 14475 | 27541 | 1.2 | 2.8E-01 | D86550.1 | NT | Human mRNA for serine/threonine protein kinase, complete cds |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1766 | 14915 | 28011 | 1.87 | 2.8E-01 | AW860020.1 | EST_HUMAN | QV1-CT0364-120200-065-b05 CT0364 Homo sapiens cDNA |
| 2069 | 15210 | 28326 | 1.49 | 2.8E-01 | AL047620.1 | EST_HUMAN | DKFZp586I2321_r1 586 (synonym: hute1) Homo sapiens cDNA clone DKFZp586I2321 |
| 2200 | 15335 | 28462 | 1.51 | 2.8E-01 | AW511195.1 | EST_HUMAN | hd44b03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2912333 3' |
| 2542 | 15667 | 28791 | 2.98 | 2.8E-01 | AE000494.1 | NT | Escherichia coli K-12 MG1655 section 384 of 400 of the complete genome |
| 2542 | 15667 | 28792 | 2.98 | 2.8E-01 | AE000494.1 | NT | Escherichia coli K-12 MG1655 section 384 of 400 of the complete genome |
| 2612 | 15736 |  | 2.95 | 2.8E-01 | AL161565.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 65 |
| 2730 | 15848 | 28958 | 1.16 | 2.8E-01 | AB020975.1 | NT | Arabidopsis thaliana mRNA for lipoyltransferase, complete cds |
| 3035 | 16211 |  | 1.37 | 2.8E-01 | AF179480.1 | NT | Toxoplasma gondii 90kDa heat-shock protein (HSP90) mRNA, partial cds |
| 3036 | 16212 | 29234 | 2.52 | 2.8E-01 | Z14037.1 | NT | B.taurus microsatellite (ETH121) |
| 3036 | 16212 | 29235 | 2.52 | 2.8E-01 | Z14037.1 | NT | B.taurus microsatellite (ETH121) |
| 3468 | 16633 | 29652 | 1.05 | 2.8E-01 | AP000004.1 | NT | Pyrococcus horikoshii OT3 genomic DNA, 777001-994000 nt. position (4/7) |
| 4103 | 17257 | 30257 | 1.67 | 2.8E-01 | AE001180.1 | NT | Borrelia burgdorferi (section 68 of 70) of the complete genome |
| 4240 | 17386 |  | 0.6 | 2.8E-01 | AE004450.1 | NT | Pseudomonas aeruginosa PA01, section 11 of 529 of the complete genome |
| 4315 | 17458 |  | 2.17 | 2.8E-01 | AI090868.1 | EST_HUMAN | ov44g10.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1640226 3' similar to contains Alu repetitive element;contains element MER22 repetitive element ; |
| 4582 | 17719 | 30702 | 2 | 2.8E-01 | P13615 | SWISSPROT | RNA POLYMERASE BETA SUBUNIT (LARGE STRUCTURAL PROTEIN) (L PROTEIN) |
| 4944 | 18074 | 31049 | 0.92 | 2.8E-01 | AF075238.1 | NT | Hepatitis G virus isolate 60 (SZNAE12) polyprotein precursor, gene, partial cds |
| 4950 | 18080 | 31056 | 4.95 | 2.8E-01 | AF030154.1 | NT | Bovine adenovirus 3 complete genome |
| 4984 | 18113 | 31090 | 1.52 | 2.8E-01 | BF528168.1 | EST_HUMAN | 602042601F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4180129 5' |
| 5006 | 18135 | 31109 | 3.66 | 2.8E-01 | AI272669.1 | EST_HUMAN | ql59c11.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1876628 3' similar to contains Alu repetitive element;contains element LTR5 repetitive element ; |
| 5318 | 18473 | 31404 | 0.61 | 2.8E-01 | X60797.1 | NT | Mouse Kv3.3 gene for potassium channel protein, exon 2 |
| 5426 | 25804 | 31602 | 23.61 | 2.8E-01 | AA349997.1 | EST_HUMAN | EST57072 Infant brain Homo sapiens cDNA 5' end |
| 5723 | 18916 | 32211 | 2.57 | 2.8E-01 | AB016625.1 | NT | Homo sapiens OCTN2 gene, complete cds |
| 5938 | 19124 |  | 0.93 | 2.8E-01 | AW992583.1 | EST_HUMAN | CM1-BN0024-150200-118-g12 BN0024 Homo sapiens cDNA |
| 6042 | 19225 | 32548 | 0.66 | 2.8E-01 | AA765296.1 | EST_HUMAN | oa01d06.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1303691 3' similar to gb:M34539 FK506-BINDING PROTEIN (HUMAN); |
| 6059 | 19241 |  | 0.64 | 2.8E-01 | AA404576.1 | EST_HUMAN | zt41f01.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:724921 5' similar to contains Alu repetitive element; |
| 6305 | 26212 |  | 0.67 | 2.8E-01 | M36668.1 | NT | Bovine 680 bp repeated unit of 1.723 satellite DNA |
| 6347 | 19517 | 32874 | 1.65 | 2.8E-01 | AF003124.1 | NT | Mesembryanthemum crystallinum fructose-biphosphate aldolase mRNA, complete cds |
| 6347 | 19517 | 32875 | 1.65 | 2.8E-01 | AF003124.1 | NT | Mesembryanthemum crystallinum fructose-biphosphate aldolase mRNA, complete cds |
| 6870 | 20022 | 33432 | 7.84 | 2.8E-01 | BF511215.1 | EST_HUMAN | UI-H-BI4-aoi-f-04-0-UI.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3085182 3' |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7145 | 20280 | 33721 | 0.64 | 2.8E-01 | U65300.1 | NT | Orthogeomys heterodus cytochrome b (cytb) gene, mitochondrial gene encoding mitochondrial protein, complete cds |
| 7599 | 20669 | | 1.14 | 2.8E-01 | U05633.1 | NT | Marsilea quadrifolia ribulose-1,5-bisphosphate carboxylase/oxygenase large subunit (rbcL) gene, chloroplast gene encoding chloroplast protein, partial cds |
| 8284 | 21366 | 34884 | 1.31 | 2.8E-01 | AI346126.1 | EST_HUMAN | qp48h01.x1 NCI_CGAP_Co8 Homo sapiens cDNA clone IMAGE:1926289 3' similar to gb;X06323_cds1 MITOCHONDRIAL 60S RIBOSOMAL PROTEIN L3 (HUMAN); |
| 8284 | 21366 | 34885 | 1.31 | 2.8E-01 | AI346126.1 | EST_HUMAN | qp48h01.x1 NCI_CGAP_Co8 Homo sapiens cDNA clone IMAGE:1926289 3' similar to gb:X06323_cds1 MITOCHONDRIAL 60S RIBOSOMAL PROTEIN L3 (HUMAN); |
| 8404 | 21485 | 35014 | 2.31 | 2.8E-01 | U51688.1 | NT | Homo sapiens lanosterol 14-alpha demethylase cytochrome P450 (CYP51) gene, exon 5 |
| 8712 | 21792 | 35328 | 0.6 | 2.8E-01 | AA911629.1 | EST_HUMAN | of02h05.s1 NCI_CGAP_Co12 Homo sapiens cDNA clone IMAGE:1419993 3' similar to gb:M87789 IG GAMMA-1 CHAIN C REGION (HUMAN); |
| 8789 | 21868 | | 7.72 | 2.8E-01 | BF347847.1 | EST_HUMAN | 602022987F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4158525 5' |
| 9666 | 22628 | 36199 | 1.14 | 2.8E-01 | U17251.1 | NT | Neurospora crassa negative regulator sulfur controller-2 (scon-2) gene, complete cds |
| 9912 | 22952 | | 1.16 | 2.8E-01 | L13654.1 | NT | Lycopersicon esculentum peroxidase (TPX1) mRNA, complete cds |
| 10092 | 23130 | 36733 | 0.98 | 2.8E-01 | AF132728.1 | NT | Escherichia coli translocated intimin receptor Tir (tir) gene, complete cds |
| 10092 | 23130 | 36734 | 0.98 | 2.8E-01 | AF132728.1 | NT | Escherichia coli translocated intimin receptor Tir (tir) gene, complete cds |
| 10152 | 23189 | 36786 | 0.46 | 2.8E-01 | AE001310.1 | NT | Chlamydia trachomatis section 37 of 87 of the complete genome |
| 10156 | 23193 | 36789 | 0.7 | 2.8E-01 | AF294393.1 | NT | Rattus norvegicus glycerol-3-phosphate dehydrogenase gene, promoters A and B and exons 1a and 1b; nuclear gene for mitochondrial product |
| 10265 | 23300 | 36898 | 3.8 | 2.8E-01 | 7706163 | NT | Homo sapiens hypothetical protein (LOC51319), mRNA |
| 10519 | 23554 | | 1.1 | 2.8E-01 | 9626154 | NT | Fujinami sarcoma virus, complete genome |
| 10561 | 23596 | 37202 | 0.5 | 2.8E-01 | BE959727.2 | EST_HUMAN | 601654822R1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:3839765 3' |
| 10982 | 24061 | 37695 | 1.88 | 2.8E-01 | BF241062.1 | EST_HUMAN | 601880794F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4109350 5' |
| 10982 | 24061 | 37696 | 1.88 | 2.8E-01 | BF241062.1 | EST_HUMAN | 601880794F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4109350 5' |
| 11011 | 24090 | 37727 | 3.01 | 2.8E-01 | BF695970.1 | EST_HUMAN | 601852148F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4076026 5' |
| 11119 | 24191 | 37823 | 1.53 | 2.8E-01 | AF051662.1 | NT | Drosophila heteroneura fruitless (fru) gene, alternative splice products, 5' flanking region, exons 1 through 7 and complete cds |
| 11556 | 24611 | | 3.58 | 2.8E-01 | BF674023.1 | EST_HUMAN | 602137418F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4273853 5' |
| 11851 | 24840 | 38533 | 1.55 | 2.8E-01 | AJ248285.1 | NT | Pyrococcus abyssi complete genome; segment 3/6 |
| 11851 | 24840 | 38534 | 1.55 | 2.8E-01 | AJ248285.1 | NT | Pyrococcus abyssi complete genome; segment 3/6 |
| 12715 | 25475 | | 12.79 | 2.8E-01 | D83329.1 | NT | Mus musculus DNA for prostaglandin D2 synthase, complete cds |
| 12846 | 25562 | 31987 | 7.61 | 2.8E-01 | BE178699.1 | EST_HUMAN | PM4-HT0606-030400-001-a07 HT0606 Homo sapiens cDNA |
| 12876 | 25582 | 31996 | 1.29 | 2.8E-01 | BE900116.1 | EST_HUMAN | 601673020F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3955996 5' |
| 13062 | 26066 | | 1.59 | 2.8E-01 | 11433629 | NT | Homo sapiens CDC42-binding protein kinase beta (DMPK-like) (CDC42BPB), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 489 | 13683 | 26717 | 4.34 | 2.7E-01 | Y17324.1 | NT | Rattus norvegicus CDK104 mRNA |
| 628 | 13813 | 26835 | 13.64 | 2.7E-01 | AA450061.1 | EST_HUMAN | zx39b10.s1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:788827 3' similar to contains Alu repetitive element; |
| 1290 | 14446 | 27512 | 2.04 | 2.7E-01 | AB004906.1 | NT | Ipomoea purpurea transposable element Tip100 gene for transposase, complete cds |
| 1660 | 14803 | | 1.63 | 2.7E-01 | X79815.1 | NT | G.lamblia SR2 gene |
| 1768 | 14917 | 28012 | 3.16 | 2.7E-01 | W58067.1 | EST_HUMAN | zd22h10.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:341443 5' |
| 1817 | 14966 | 28059 | 1.46 | 2.7E-01 | P03341 | SWISSPROT | GAG POLYPROTEIN [CONTAINS: INNER COAT PROTEIN P12; CORE PROTEIN P15; CORE SHELL PROTEIN P30; NUCLEOPROTEIN P10] |
| 2204 | 16057 | | 3.1 | 2.7E-01 | AF047575.1 | NT | Rattus norvegicus vesicular monoamine transporter type 2, promoter region and exon 1 |
| 2250 | 16383 | 28510 | 0.94 | 2.7E-01 | AI372772.1 | EST_HUMAN | EST175679 Infant brain, Bento Soares Homo sapiens cDNA clone UHIBO1R 5' end |
| 2250 | 16383 | 28511 | 0.94 | 2.7E-01 | AI372772.1 | EST_HUMAN | EST175679 Infant brain, Bento Soares Homo sapiens cDNA clone UHIBO1R 5' end |
| 2440 | 15568 | 28695 | 7.07 | 2.7E-01 | Y13868.1 | NT | Feline immunodeficiency virus env gene, isolate ITTO088PIU (M88), partial |
| 2526 | 16651 | 28775 | 4.36 | 2.7E-01 | AI310858.1 | EST_HUMAN | ta43c11.x2 NCI_CGAP_Lu25 Homo sapiens cDNA clone IMAGE:2046836 3' similar to contains element L1 repetitive element ; |
| 3049 | 16225 | | 0.99 | 2.7E-01 | BF088284.1 | EST_HUMAN | CM1-HT0875-060900-385-e05 HT0875 Homo sapiens cDNA |
| 3361 | 16533 | 29547 | 0.66 | 2.7E-01 | 8393620 | NT | Rattus norvegicus insulin receptor (Insr), mRNA |
| 4118 | 17272 | 30271 | 1.94 | 2.7E-01 | AI928015.1 | EST_HUMAN | wo92e11.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2462828 3' |
| 4133 | 17286 | 30281 | 0.68 | 2.7E-01 | AF216214.1 | NT | Drosophila buzzatii alpha-esterase 6 (aE6) gene, partial cds |
| 4133 | 17288 | 30282 | 0.68 | 2.7E-01 | AF216214.1 | NT | Drosophila buzzatii alpha-esterase 6 (aE6) gene, partial cds |
| 4140 | 17292 | 30286 | 2.39 | 2.7E-01 | L77569.1 | NT | Homo sapiens DiGeorge syndrome critical region, telomeric end |
| 5153 | 18275 | | 4.46 | 2.7E-01 | AW856131.1 | EST_HUMAN | RC1-CT0286-230200-016-e03 CT0286 Homo sapiens cDNA |
| 5381 | 18583 | 31452 | 1.98 | 2.7E-01 | P17277 | SWISSPROT | HOMEOBOX PROTEIN HOX-A4 (CHOX-1.4) |
| 5607 | 18802 | | 1.31 | 2.7E-01 | AB033171.1 | NT | Astreopora myriophthalma mitochondrial cytb gene for cytochrome b, partial cds |
| 6472 | 19639 | 32998 | 0.86 | 2.7E-01 | Q00918 | SWISSPROT | LATENT TRANSFORMING GROWTH FACTOR BETA BINDING PROTEIN 1 PRECURSOR (TRANSFORMING GROWTH FACTOR BETA-1 BINDING PROTEIN 1) (TGF-BETA1-BP-1) (TRANSFORMING GROWTH FACTOR BETA-1 MASKING PROTEIN, LARGE SUBUNIT) |
| 6472 | 19639 | 32999 | 0.86 | 2.7E-01 | Q00918 | SWISSPROT | LATENT TRANSFORMING GROWTH FACTOR BETA BINDING PROTEIN 1 PRECURSOR (TRANSFORMING GROWTH FACTOR BETA-1 BINDING PROTEIN 1) (TGF-BETA1-BP-1) (TRANSFORMING GROWTH FACTOR BETA-1 MASKING PROTEIN, LARGE SUBUNIT) |
| 6745 | 19901 | 33293 | 1.05 | 2.7E-01 | AE001094.1 | NT | Archaeoglobus fulgidus section 13 of 172 of the complete genome |
| 6745 | 19901 | 33294 | 1.05 | 2.7E-01 | AE001094.1 | NT | Archaeoglobus fulgidus section 13 of 172 of the complete genome |
| 6918 | 20233 | 33667 | 1.74 | 2.7E-01 | Q61554 | SWISSPROT | FIBRILLIN 1 PRECURSOR |
| 7197 | 20062 | | 0.77 | 2.7E-01 | AI540070.1 | EST_HUMAN | td08h08.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2075103 3' |
| 7511 | 20585 | 34058 | 0.92 | 2.7E-01 | Q11079 | SWISSPROT | HYPOTHETICAL 20.9 KD PROTEIN B0563.3 IN CHROMOSOME X |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7734 | 20795 | 34283 | 0.87 | 2.7E-01 | Q01168 | SWISSPROT | NITROGEN REGULATORY PROTEIN NUT1 |
| 7734 | 20795 | 34284 | 0.87 | 2.7E-01 | Q01168 | SWISSPROT | NITROGEN REGULATORY PROTEIN NUT1 |
| 7865 | 20919 | 34425 | 2.1 | 2.7E-01 | AF248054.1 | NT | Bos taurus micromolar calcium activated neutral protease 1 (CAPN1) gene, exons 11-20, and partial cds |
| 7865 | 20919 | 34426 | 2.1 | 2.7E-01 | AF248054.1 | NT | Bos taurus micromolar calcium activated neutral protease 1 (CAPN1) gene, exons 11-20, and partial cds |
| 7917 | 20968 | 34474 | 0.72 | 2.7E-01 | AA351121.1 | EST_HUMAN | EST58740 Infant brain Homo sapiens cDNA 5' end similar to similar to myosin-binding protein H |
| 7917 | 20968 | 34475 | 0.72 | 2.7E-01 | AA351121.1 | EST_HUMAN | EST58740 Infant brain Homo sapiens cDNA 5' end similar to similar to myosin-binding protein H |
| 7976 | 21026 | 34540 | 0.66 | 2.7E-01 | L01081.1 | NT | Oryctolagus cuniculus UDP-glucuronosyltransferase (UGT2B13) mRNA, complete cds |
| 8048 | 21131 | 34651 | 0.66 | 2.7E-01 | AA013147.1 | EST_HUMAN | ze35b11.s1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:360957 3' similar to contains Alu repetitive element; |
| 8330 | 21412 | 34938 | 0.56 | 2.7E-01 | AW868503.1 | EST_HUMAN | MR1-SN0062-100500-002-d09 SN0062 Homo sapiens cDNA |
| 8380 | 21461 | 34984 | 0.69 | 2.7E-01 | R39257.1 | EST_HUMAN | yc91h06.s1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:23511 3' |
| 8486 | 21567 | 35104 | 0.83 | 2.7E-01 | AL161552.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 52 |
| 8959 | 22038 | 35580 | 1.4 | 2.7E-01 | Q14764 | SWISSPROT | MAJOR VAULT PROTEIN (MVP) (LUNG RESISTANCE-RELATED PROTEIN) |
| 9534 | 22599 | 36171 | 10.56 | 2.7E-01 | O83809 | SWISSPROT | THREONYL-TRNA SYNTHETASE (THREONINE--TRNA LIGASE) (THRRS) |
| 9534 | 22599 | 36172 | 10.56 | 2.7E-01 | O83809 | SWISSPROT | THREONYL-TRNA SYNTHETASE (THREONINE--TRNA LIGASE) (THRRS) |
| 9537 | 22602 |  | 2.66 | 2.7E-01 | P37928 | SWISSPROT | FIMBRIAE W PROTEIN |
| 10005 | 23043 | 36636 | 0.8 | 2.7E-01 | D89660.1 | NT | Rattus norvegicus DNA for peroxisome assembly factor-2, exon 4, 5, 6, 7, 8, 9, 10, 11,12, 13, 14, 15, 16, 17 and complete cds |
| 10286 | 23321 | 36923 | 0.9 | 2.7E-01 | AF091848.1 | NT | Oryctolagus cuniculus calgranulin C mRNA, partial cds |
| 10323 | 23358 | 36968 | 2.06 | 2.7E-01 | AF087434.1 | NT | Mus musculus transcription factor NF-ATc isoform a (NF-ATca) mRNA, complete cds |
| 10455 | 23490 | 37099 | 1.06 | 2.7E-01 | AF156539.1 | NT | Homo sapiens xeroderma pigmentosum complementation group C (XPC) gene, intron 9 |
| 10455 | 23490 | 37100 | 1.06 | 2.7E-01 | AF156539.1 | NT | Homo sapiens xeroderma pigmentosum complementation group C (XPC) gene, intron 9 |
| 10749 | 23782 |  | 0.51 | 2.7E-01 | AB011679.1 | NT | Rattus norvegicus mRNA for class I beta-tubulin, complete cds |
| 10765 | 23798 | 37418 | 0.58 | 2.7E-01 | AF281074.1 | NT | Homo sapiens neuropilin 2 (NRP2) gene, complete cds, alternatively spliced |
| 10765 | 23798 | 37419 | 0.58 | 2.7E-01 | AF281074.1 | NT | Homo sapiens neuropilin 2 (NRP2) gene, complete cds, alternatively spliced |
| 11050 | 24127 | 37761 | 1.99 | 2.7E-01 | AV705043.1 | EST_HUMAN | AV705043 ADB Homo sapiens cDNA clone ADBCOD05 5' |
| 11050 | 24127 | 37762 | 1.99 | 2.7E-01 | AV705043.1 | EST_HUMAN | AV705043 ADB Homo sapiens cDNA clone ADBCOD05 5' |
| 11061 | 24137 | 37772 | 2.58 | 2.7E-01 | AJ133269.1 | NT | Homo sapiens caveolin-1/-2 locus, Contig1, D7S522, genes CAV2 (exons 1, 2a, and 2b), CAV1 (exons 1 and 2) |
| 12816 | 25942 |  | 1.49 | 2.7E-01 | AB008782.1 | NT | Arabidopsis thaliana mRNA for sulfate transporter, complete cds |
| 13034 | 26681 |  | 2.75 | 2.7E-01 | AF217491.1 | NT | Homo sapiens fragile 16D oxido reductase (FOR) gene, exon 6 |
| 482 | 16013 | 26710 | 2.8 | 2.6E-01 | P78411 | SWISSPROT | IROQUOIS-CLASS HOMEODOMAIN PROTEIN IRX-2 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 493 | 13688 | | 1.94 | 2.6E-01 | D16459.1 | NT | Bos taurus mRNA for mb-1, complete cds |
| 1424 | 14578 | 27651 | 1.77 | 2.6E-01 | BE885087.1 | EST_HUMAN | 601510838F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912345 5' |
| 1468 | 14622 | 27705 | 1.09 | 2.6E-01 | AB013290.1 | NT | Glycine max pseudogene for Bd 30K |
| 1945 | 15088 | 28188 | 7.69 | 2.6E-01 | AL161472.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 2 |
| 1946 | 15088 | 28189 | 7.69 | 2.6E-01 | AL161472.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 2 |
| 2159 | 15295 | | 10.39 | 2.6E-01 | AW733152.1 | EST_HUMAN | bb04d10.x1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:2958451 3' similar to gb:M36072 60S RIBOSOMAL PROTEIN L7A (HUMAN); gb:M14689_cds1 Mouse surfeit locus surfeit 3 protein gene (MOUSE); |
| 2220 | 15354 | 28485 | 1.13 | 2.6E-01 | M11844.1 | NT | Human prealbumin gene, complete cds |
| 2611 | 15735 | | 11.66 | 2.6E-01 | BE272440.1 | EST_HUMAN | 601126016F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:2990043 5' |
| 3161 | 16336 | | 1.11 | 2.6E-01 | AW974531.1 | EST_HUMAN | EST386635 MAGE resequences, MAGM Homo sapiens cDNA |
| 3671 | 16834 | 29845 | 0.84 | 2.6E-01 | M22342.1 | NT | Bacteriphage T2 DNA-(adenine-N6)methyltransferase (dam) gene, complete cds |
| 3733 | 16894 | 29899 | 1.67 | 2.6E-01 | AF229118.1 | NT | Homo sapiens acetylcholinesterase collagen-like tail subunit (COLQ) gene, exons 1A, 2, 3, 4, and 5 |
| 4215 | 17364 | 30352 | 0.79 | 2.6E-01 | AW959510.1 | EST_HUMAN | EST371580 MAGE resequences, MAGF Homo sapiens cDNA |
| 4270 | 17415 | 30404 | 16.93 | 2.6E-01 | BE080598.1 | EST_HUMAN | QV1-BT0630-040400-132-e03 BT0630 Homo sapiens cDNA |
| 4476 | 17616 | 30597 | 1.71 | 2.6E-01 | AF175293.1 | NT | Enterococcus faecium strain N97-330 vanD glycopeptide resistance gene cluster, complete cds; and unknown gene |
| 4617 | 17754 | 30735 | 0.69 | 2.6E-01 | AB021180.1 | NT | Gallus gallus mRNA for skeletal myosin heavy chain, complete cds |
| 4617 | 17754 | 30736 | 0.69 | 2.6E-01 | AB021180.1 | NT | Gallus gallus mRNA for skeletal myosin heavy chain, complete cds |
| 4670 | 17806 | 30794 | 1.14 | 2.6E-01 | AA457617.1 | EST_HUMAN | aa89d07.r1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:838477 5' |
| 4770 | 17905 | 30887 | 2.25 | 2.6E-01 | U01103.1 | NT | Arabidopsis thaliana PSI type III chlorophyll a/b-binding protein (Lhca3*1) mRNA, complete cds |
| 4837 | 17970 | 30958 | 1.15 | 2.6E-01 | AF142703.1 | NT | Ophrestia radicosa maturase-like protein (matK) gene, complete cds; chloroplast gene for chloroplast product |
| 5086 | 18214 | 31187 | 3.63 | 2.6E-01 | H04858.1 | EST_HUMAN | yj51e05.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:152288 5' |
| 5165 | 18277 | | 0.61 | 2.6E-01 | AA884625.1 | EST_HUMAN | am33b11.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1468605 3' |
| 5457 | 18657 | | 1.29 | 2.6E-01 | AB035972.1 | NT | Paramecium caudatum gene for PAP, complete cds |
| 5565 | 18762 | 31802 | 0.67 | 2.6E-01 | M96060.1 | NT | Acetobacter xylinum cellulose synthase (bcsA) gene, partial cds, CMCax and CcpAx genes, complete cds |
| 5689 | 18883 | | 0.84 | 2.6E-01 | AI862398.1 | EST_HUMAN | td16a03.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:2075788 3' similar to contains element MER35 repetitive element ; |
| 5895 | 19083 | 32394 | 0.64 | 2.6E-01 | AF207550.1 | NT | Homo sapiens protein translocase, JM26 protein, UDP-galactose translocator, pim-2 protooncogene homolog pim-2h, and shal-type potassium channel genes, complete cds; JM12 protein and transcription factor IGHM enhancer 3 genes, partial cds; and unknown g> |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6196 | 26211 | | 2.57 | 2.6E-01 | AE001811.1 | NT | Thermotoga maritima section 123 of 136 of the complete genome |
| 6330 | 19501 | 32859 | 1.96 | 2.6E-01 | AI582557.1 | EST_HUMAN | ts02e12.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2227438 3' similar to SW:NDF1_RAT Q64289 NEUROGENIC DIFFERENTIATION FACTOR 1 ;contains element LTR1 repetitive element ; |
| 6330 | 19501 | 32860 | 1.96 | 2.6E-01 | AI582557.1 | EST_HUMAN | ts02e12.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2227438 3' similar to SW:NDF1_RAT Q64289 NEUROGENIC DIFFERENTIATION FACTOR 1 ;contains element LTR1 repetitive element ; |
| 6552 | 19714 | 33090 | 0.98 | 2.6E-01 | AL162757.2 | NT | Neisseria meningitidis serogroup A strain Z2491 complete genome; segment 6/7 |
| 6807 | 19961 | 33364 | 0.74 | 2.6E-01 | BE792052.1 | EST_HUMAN | 601581754F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3936156 5' |
| 6807 | 19961 | 33365 | 0.74 | 2.6E-01 | BE792052.1 | EST_HUMAN | 601581754F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3936156 5' |
| 7183 | 20315 | 33758 | 1.04 | 2.6E-01 | AI914380.1 | EST_HUMAN | wd48c04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2331366 3' similar to gb:M37721 PEPTIDYL-GLYCINE ALPHA-AMIDATING MONOOXYGENASE PRECURSOR (HUMAN); |
| 7549 | 20621 | 34098 | 0.7 | 2.6E-01 | BE148961.1 | EST_HUMAN | CM0-HT0245-031199-086-f04 HT0245 Homo sapiens cDNA |
| 7587 | 25848 | | 0.96 | 2.6E-01 | AL139077.2 | NT | Campylobacter jejuni NCTC11168 complete genome; segment 4/6 |
| 7626 | 20696 | | 0.78 | 2.6E-01 | AA196149.1 | EST_HUMAN | zp92e01.r1 Stratagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:627672 5' |
| 7918 | 20969 | 34476 | 1.73 | 2.6E-01 | R10365.1 | EST_HUMAN | yf37a03.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:129004 3' similar to gb:X12517 U1 SMALL NUCLEAR RIBONUCLEOPROTEIN C (HUMAN); |
| 8033 | 21116 | 34634 | 1.18 | 2.6E-01 | R02411.1 | EST_HUMAN | ye82a07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:124212 5' |
| 8088 | 21170 | 34685 | 1.3 | 2.6E-01 | BE144331.1 | EST_HUMAN | MR0-HT0166-181199-003-d12 HT0166 Homo sapiens cDNA |
| 8529 | 21610 | 35148 | 2.97 | 2.6E-01 | BF343588.1 | EST_HUMAN | 602014422F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4150396 5' |
| 8605 | 21686 | 35223 | 1.74 | 2.6E-01 | Q10199 | SWISSPROT | HYPOTHETICAL 75.2 KD PROTEIN C11C11.02 IN CHROMOSOME II |
| 8892 | 21971 | 35506 | 4.06 | 2.6E-01 | BE830339.1 | EST_HUMAN | RC5-ET0082-310500-021-F10 ET0082 Homo sapiens cDNA |
| 8892 | 21971 | 35507 | 4.06 | 2.6E-01 | BE830339.1 | EST_HUMAN | RC5-ET0082-310500-021-F10 ET0082 Homo sapiens cDNA |
| 9667 | 22629 | 36200 | 0.92 | 2.6E-01 | X17604.1 | NT | S. occidentalis INV gene for invertase (EC 3.2.1.26) |
| 9940 | 22979 | | 0.5 | 2.6E-01 | AF057121.1 | NT | Lontra canadensis cytochrome b (cytb) gene, mitochondrial gene encoding mitochondrial protein, complete cds |
| 10072 | 23110 | 36713 | 1.13 | 2.6E-01 | P87366 | SWISSPROT | GREEN-SENSITIVE OPSIN (GREEN CONE PHOTORECEPTOR PIGMENT) (KFH-G) |
| 10072 | 23110 | 36714 | 1.13 | 2.6E-01 | P87366 | SWISSPROT | GREEN-SENSITIVE OPSIN (GREEN CONE PHOTORECEPTOR PIGMENT) (KFH-G) |
| 10393 | 23428 | | 0.63 | 2.6E-01 | Q28295 | SWISSPROT | VON WILLEBRAND FACTOR PRECURSOR (VWF) |
| 10727 | 23760 | | 1.09 | 2.6E-01 | Y10196.1 | NT | Homo sapiens PHEX gene |
| 10840 | 23873 | | 0.48 | 2.6E-01 | Y15874.2 | NT | Danio rerio mRNA for RPTP-alpha protein |
| 11815 | 24804 | | 31.14 | 2.6E-01 | X51755.1 | NT | Human lambda-immunoglobulin constant region complex (germline) |
| 12468 | 26070 | | 4.14 | 2.6E-01 | BE883491.1 | EST_HUMAN | 601511052F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912612 5' |
| 12535 | 25365 | 32069 | 3.86 | 2.6E-01 | AF316896.1 | NT | Homo sapiens Na/K-ATPase gamma subunit (FXYD2) gene, complete cds, alternatively spliced |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 12922 | 25607 |  | 2.04 | 2.6E-01 | D88425.1 | NT | Cavia cobaya mRNA for serine/threoine kinase, complete cds |
| 13007 | 25663 |  | 1.78 | 2.6E-01 | AE001713.1 | NT | Thermotoga maritima section 25 of 136 of the complete genome |
| 13057 | 25692 |  | 2.36 | 2.6E-01 | AF141325.2 | NT | Homo sapiens inositol polyphosphate 1-phosphatase (INPP1) gene, complete cds |
| 13098 | 15735 |  | 1.43 | 2.6E-01 | BE272440.1 | EST_HUMAN | 601126016F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:2990043 5' |
| 13107 | 25722 |  | 2.04 | 2.6E-01 | P47285 | SWISSPROT | HYPOTHETICAL PROTEIN MG039 |
| 13160 | 25748 |  | 2.4 | 2.6E-01 | U30729.1 | NT | Arabidopsis thaliana floral homeotic (AP3) gene, promoter region and partial cds |
| 251 | 13472 | 26503 | 1.87 | 2.5E-01 | 4502296 | NT | Homo sapiens ATP synthase, H+ transporting, mitochondrial F1 complex, delta subunit (ATP5D), nuclear gene encoding mitochondrial protein, mRNA |
| 262 | 13472 | 26503 | 1.7 | 2.5E-01 | 4502296 | NT | Homo sapiens ATP synthase, H+ transporting, mitochondrial F1 complex, delta subunit (ATP5D), nuclear gene encoding mitochondrial protein, mRNA |
| 265 | 13484 |  | 2.51 | 2.5E-01 | M26501.1 | NT | Starfish (P.ochraceus) cytoplasmic actin gene, complete cds |
| 855 | 14032 | 27093 | 1.23 | 2.5E-01 | U09964.1 | NT | Mus musculus ICR/Swiss glyceraldehyde 3-phosphate dehydrogenase (Gapd-S) gene, complete cds |
| 1085 | 14251 |  | 1.75 | 2.5E-01 | AE002156.1 | NT | Ureaplasma urealyticum section 57 of 59 of the complete genome |
| 1145 | 14310 | 27367 | 5.45 | 2.5E-01 | T89837.1 | EST_HUMAN | ye11g07.r1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:117468 5' |
| 1767 | 14916 |  | 4.63 | 2.5E-01 | 4885406 | NT | Homo sapiens hyperpolarization activated cyclic nucleotide-gated potassium channel 4 (HCN4) mRNA |
| 2479 | 15606 |  | 11.21 | 2.5E-01 | AE000675.1 | NT | Aquifex aeolicus section 7 of 109 of the complete genome |
| 2563 | 15688 | 28814 | 1.22 | 2.5E-01 | 6679216 | NT | Mus musculus protein-L-isoaspartate (D-aspartate) O-methyltransferase 1 (Pcmt1), mRNA |
| 2565 | 15690 |  | 1.02 | 2.5E-01 | AA251987.1 | EST_HUMAN | zs11a12.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:684862 5' |
| 2702 | 15820 | 28936 | 1 | 2.5E-01 | X95310.1 | NT | B.taurus mRNA for D-aspartate oxidase |
| 3499 | 16666 |  | 3.34 | 2.5E-01 | AW973471.1 | EST_HUMAN | EST385464 MAGE resequences, MAGM Homo sapiens cDNA |
| 3639 | 16803 | 29816 | 7.18 | 2.5E-01 | AL161517.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 29 |
| 3950 | 17108 | 30105 | 1.25 | 2.5E-01 | AI741483.1 | EST_HUMAN | wg11c07.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2364780 3' |
| 3950 | 17108 | 30106 | 1.25 | 2.5E-01 | AI741483.1 | EST_HUMAN | wg11c07.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2364780 3' |
| 4438 | 17578 |  | 0.88 | 2.5E-01 | Q03314 | SWISSPROT | RHIB PROTEIN |
| 4737 | 17872 | 30855 | 0.7 | 2.5E-01 | AF242431.1 | NT | Mus musculus neuronal apoptosis inhibitory protein 6 (Naip6) gene, complete cds; and Naip3 gene, exons 2-9 and 11-16 |
| 4871 | 18004 |  | 1.13 | 2.5E-01 | Q27225 | SWISSPROT | MOLT-INHIBITING HORMONE PRECURSOR (MIH) |
| 4878 | 18009 | 30993 | 3.99 | 2.5E-01 | AF007768.1 | NT | Choristoneura fumiferana diapause associated protein 2 (DAP2) mRNA, complete cds |
| 4904 | 18034 | 31023 | 2.3 | 2.5E-01 | AE004416.1 | NT | Vibrio cholerae chromosome II, section 73 of 93 of the complete chromosome |
| 4926 | 18056 |  | 3.54 | 2.5E-01 | AJ230113.1 | NT | Mus musculus annexin V gene, intron 4 segment containing 5' LTR and gag portion of MuERV-L (murine endogenous retrovirus) element |
| 4954 | 18084 | 31060 | 0.8 | 2.5E-01 | BE896785.1 | EST_HUMAN | 601437468F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3922600 5' |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4994 | 18123 | 31101 | 0.61 | 2.5E-01 | U83656.1 | NT | Rattus norvegicus NF-KB gene, promotor region |
| 5212 | 18333 | 31303 | 0.62 | 2.5E-01 | P27023 | SWISSPROT | MAJOR SURFACE GLYCOPROTEIN G (ATTACHMENT GLYCOPROTEIN G) |
| 5212 | 18333 | 31304 | 0.62 | 2.5E-01 | P27023 | SWISSPROT | MAJOR SURFACE GLYCOPROTEIN G (ATTACHMENT GLYCOPROTEIN G) |
| 5337 | 18450 |  | 1.08 | 2.5E-01 | AA419208.1 | EST_HUMAN | zv35a05.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:755600 5' similar to gb:M88279 P59 PROTEIN (HUMAN); |
| 5441 | 18641 | 31620 | 12.21 | 2.5E-01 | S83390.1 | NT | T3 receptor-associating cofactor-1 [human, fetal liver, mRNA, 2930 nt] |
| 6080 | 19262 | 32591 | 0.6 | 2.5E-01 | AJ006345.1 | NT | Homo sapiens KVLQT1 gene |
| 6081 | 19263 |  | 0.81 | 2.5E-01 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 6762 | 19918 | 33313 | 0.82 | 2.5E-01 | AJ251973.1 | NT | Homo sapiens partial steerin-1 gene |
| 7190 | 20055 | 33465 | 0.64 | 2.5E-01 | 8394138 | NT | Rattus norvegicus rabin 3 (RABIN3), mRNA |
| 7507 | 20581 | 34054 | 0.71 | 2.5E-01 | U13992.1 | NT | Feline calicivirus CFI/68 RNA helicase/cysteine protease/RNA-dependent RNA polymerase polyprotein precursor and capsid protein precursor, genes, complete cds; and unknown gene |
| 7536 | 20609 |  | 1.13 | 2.5E-01 | AF134119.1 | NT | Mus musculus SKD1 (Skd1) gene, complete cds |
| 7770 | 20828 | 34319 | 0.62 | 2.5E-01 | AL161506.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 18 |
| 7814 | 20869 | 34365 | 4.23 | 2.5E-01 | AL163282.2 | NT | Homo sapiens chromosome 21 segment HS21C082 |
| 8028 | 21111 | 34630 | 2.22 | 2.5E-01 | BF109040.1 | EST_HUMAN | 7l57a03.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3525389 3' |
| 8039 | 21122 | 34642 | 0.51 | 2.5E-01 | BE960712.1 | EST_HUMAN | 601653391R2 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3826198 3' |
| 8421 | 21502 | 35034 | 1.9 | 2.5E-01 | BF038595.1 | EST_HUMAN | 601459238F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862809 5' |
| 8591 | 21672 | 35210 | 0.8 | 2.5E-01 | P04492 | SWISSPROT | E1B PROTEIN, SMALL T-ANTIGEN (E1B 19K) |
| 8837 | 21916 | 35454 | 4.07 | 2.5E-01 | H53236.1 | EST_HUMAN | yq84f07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:202501 5' |
| 9076 | 22155 | 35699 | 1.05 | 2.5E-01 | M88626.1 | NT | Mouse testis-specific protein (TPX-1) gene, exon 10 |
| 9716 | 22781 | 36351 | 16.85 | 2.5E-01 | U89651.2 | NT | Homo sapiens matrix metalloproteinase MMP Rasi-1 gene, promoter region |
| 9716 | 22781 | 36352 | 16.85 | 2.5E-01 | U89651.2 | NT | Homo sapiens matrix metalloproteinase MMP Rasi-1 gene, promoter region |
| 9772 | 22768 | 36339 | 2.44 | 2.5E-01 | AF085164.1 | NT | Hordeum vulgare receptor-like kinase LRK10 gene, partial cds |
| 9772 | 22768 | 36340 | 2.44 | 2.5E-01 | AF085164.1 | NT | Hordeum vulgare receptor-like kinase LRK10 gene, partial cds |
| 10303 | 23338 | 36943 | 1.31 | 2.5E-01 | AW581997.1 | EST_HUMAN | RC3-ST0186-130100-015-a07 ST0186 Homo sapiens cDNA |
| 10550 | 23685 | 37193 | 0.51 | 2.5E-01 | 11465652 | NT | Porphyra purpurea chloroplast, complete genome |
| 10763 | 23796 | 37416 | 1.4 | 2.5E-01 | AW152246.1 | EST_HUMAN | xg40c10.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2630034 3' similar to contains Alu repetitive element;contains element MSR1 repetitive element ; |
| 10767 | 23800 | 37422 | 1.61 | 2.5E-01 | X58491.1 | NT | Mouse L1Md LINE DNA |
| 11332 | 24395 | 38043 | 2.96 | 2.5E-01 | D50914.1 | NT | Human mRNA for KIAA0124 gene, partial cds |
| 12204 | 25158 | 38834 | 6.16 | 2.5E-01 | AF200528.1 | NT | Zea mays cellulose synthase-4 (CesA-4) mRNA, complete cds |
| 12233 | 26167 |  | 6.12 | 2.5E-01 | AL161541.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 41 |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 13024 | 25674 | | 1.22 | 2.5E-01 | AF325363.1 | NT | Delia brassica cytochrome oxidase subunit II (COII) gene, partial cds; mitochondrial gene for mitochondrial product |
| 567 | 13759 | 26783 | 1.41 | 2.4E-01 | AA936316.1 | EST_HUMAN | on70d04.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1562023 3' |
| 871 | 14047 | 27113 | 4.4 | 2.4E-01 | BF576124.1 | EST_HUMAN | 602132442F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4271578 5' |
| 1332 | 14489 | 27557 | 16.83 | 2.4E-01 | AJ289880.1 | NT | Homo sapiens KIAA0851 gene (partial), XT3 gene and LZTFL1 gene |
| 1332 | 14489 | 27558 | 16.83 | 2.4E-01 | AJ289880.1 | NT | Homo sapiens KIAA0851 gene (partial), XT3 gene and LZTFL1 gene |
| 1415 | 14569 | 27642 | 0.97 | 2.4E-01 | Y17293.1 | NT | Homo sapiens FLI-1 gene, partial |
| 1898 | 15041 | | 29.78 | 2.4E-01 | AF267753.1 | NT | Mesembryanthemum crystallinum putative potassium channel protein Mkt1p mRNA, complete cds |
| 1949 | 15092 | 28193 | 1.43 | 2.4E-01 | AF251708.1 | NT | Zaocys dhumnades fructose-1,6-bisphosphatase mRNA, complete cds |
| 2091 | 15231 | 28353 | 1.64 | 2.4E-01 | AI742958.1 | EST_HUMAN | wg76d05.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2371017 3' similar to TR:O60267 O60267 KIAA0512 PROTEIN. ; |
| 2206 | 15340 | 28467 | 1.17 | 2.4E-01 | AF111168.2 | NT | Homo sapiens serine palmitoyl transferase, subunit II gene, complete cds; and unknown genes |
| 2237 | 15370 | | 1.25 | 2.4E-01 | P45384 | SWISSPROT | IMMUNOGLOBULIN A1 PROTEASE PRECURSOR (IGA1 PROTEASE) |
| 2336 | 15467 | 28602 | 2.29 | 2.4E-01 | AE000680.1 | NT | Aquifex aeolicus section 12 of 109 of the complete genome |
| 2602 | 15726 | 28845 | 3.13 | 2.4E-01 | Z36534.1 | NT | D.discoideum (Ax3-K) ponA gene |
| 2820 | 15934 | 29045 | 2.22 | 2.4E-01 | X71783.1 | NT | S.pombe swi6 gene |
| 2846 | 15960 | 29069 | 6.27 | 2.4E-01 | AF030154.1 | NT | Bovine adenovirus 3 complete genome |
| 3202 | 16377 | | 3.03 | 2.4E-01 | U72726.1 | NT | Oryza longistaminata receptor kinase-like protein, family member D, and retrofit (gag/pol) genes, complete cds |
| 3217 | 16391 | 29402 | 1.51 | 2.4E-01 | X74209.1 | NT | H.sapiens AGT gene, PstI fragment of intron 4 |
| 3856 | 17016 | 30016 | 0.97 | 2.4E-01 | AE000312.1 | NT | Escherichia coli K-12 MG1655 section 202 of 400 of the complete genome |
| 4141 | 17293 | | 0.65 | 2.4E-01 | D29960.1 | NT | Rattus norvegicus mRNA for alphaB crystallin-related protein, complete cds |
| 5181 | 18303 | 31266 | 0.65 | 2.4E-01 | AW078596.1 | EST_HUMAN | xb18a02.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:2576618 3' |
| 5181 | 18303 | 31267 | 0.65 | 2.4E-01 | AW078596.1 | EST_HUMAN | xb18a02.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:2576618 3' |
| 5334 | 18447 | 31415 | 1.89 | 2.4E-01 | U89914.1 | NT | Bacillus firmus hypothetical 34.0 kDa protein, hypothetical 8.9 kDa protein, hypothetical 10.1 kDa protein, hypothetical 21.0 kDa protein, putative thiosulfate sulfurtransferase, hypothetical 16.1 kDa transcriptional regulator and hypothetical 18.2 kDa> |
| 5335 | 18448 | 31416 | 1.46 | 2.4E-01 | AB032785.1 | NT | Homo sapiens gene for TU12B1-TY, exon 13 |
| 5335 | 18448 | 31417 | 1.46 | 2.4E-01 | AB032785.1 | NT | Homo sapiens gene for TU12B1-TY, exon 13 |
| 5578 | 18773 | 31818 | 0.9 | 2.4E-01 | AI925707.1 | EST_HUMAN | wo33d05.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2457129 3' |
| 5578 | 18773 | 31819 | 0.9 | 2.4E-01 | AI925707.1 | EST_HUMAN | wo33d05.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2457129 3' |
| 5602 | 18797 | 31847 | 0.59 | 2.4E-01 | D50871.1 | NT | Glycine max mRNA for mitotic cyclin b1-type, complete cds |
| 5772 | 18964 | 32266 | 12.86 | 2.4E-01 | AF091216.1 | NT | Mus musculus Wrn protein (Wrn) gene, complete cds |
| 5772 | 18964 | 32267 | 12.86 | 2.4E-01 | AF091216.1 | NT | Mus musculus Wrn protein (Wrn) gene, complete cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5800 | 18990 | | 0.7 | 2.4E-01 | M83377.1 | NT | Gallus gallus brain-derived neurotrophic factor (BDNF) gene, 5' end |
| 6010 | 25815 | | 0.97 | 2.4E-01 | AJ133836.2 | NT | Branchiostoma floridae mRNA for calmodulin 2 (caM2 gene) |
| 6016 | 19200 | 32517 | 2.54 | 2.4E-01 | BF592336.1 | EST_HUMAN | 7i54d04.x1 NCI_CGAP_Br16 Homo sapiens cDNA clone IMAGE:3338503 3' similar to SW:SFR4_HUMAN Q08170 SPLICING FACTOR, ARGININE/SERINE-RICH 4 ;contains element TAR1 TAR1 repetitive element ; |
| 6106 | 19286 | 32620 | 2.47 | 2.4E-01 | AF035546.1 | NT | *Drosophila melanogaster p38a MAP kinase gene, complete cds* |
| 6215 | 19390 | 32738 | 2.49 | 2.4E-01 | 7661801 | NT | Homo sapiens HSPC142 protein (HSPC142), mRNA |
| 6269 | 19443 | 32792 | 0.94 | 2.4E-01 | AV733787.1 | EST_HUMAN | AV733787 cdA Homo sapiens cDNA clone cdAADE11 5' |
| 6516 | 19681 | 33061 | 0.87 | 2.4E-01 | AA398672.1 | EST_HUMAN | zt70d02.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:727683 3' |
| 6665 | 19824 | 33212 | 1.59 | 2.4E-01 | AI698989.1 | EST_HUMAN | wc62c11.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2323220 3' similar to gb:J03464 PROCOLLAGEN ALPHA 2(I) CHAIN PRECURSOR (HUMAN); |
| 7498 | 20573 | 34046 | 7.79 | 2.4E-01 | L43001.1 | NT | Bos taurus guanylyl cyclase-activating protein 2 (guca2) mRNA, complete cds |
| 7902 | 20954 | 34461 | 0.68 | 2.4E-01 | AF229644.1 | NT | Mus musculus DXImx48e protein (DXImx48e) mRNA, complete cds |
| 8271 | 21353 | 34868 | 0.5 | 2.4E-01 | X97252.1 | NT | M.musculus pah gene and promotor |
| 8271 | 21353 | 34869 | 0.5 | 2.4E-01 | X97252.1 | NT | M.musculus pah gene and promotor |
| 8392 | 21473 | 34999 | 1.48 | 2.4E-01 | AJ006397.1 | NT | Streptococcus pneumoniae rr08 and hk08 genes; two component system 08 |
| 8392 | 21473 | 35000 | 1.48 | 2.4E-01 | AJ006397.1 | NT | Streptococcus *pneumoniae rr08 and hk08 genes; two component system* 08 |
| 8544 | 21625 | 35162 | 1.29 | 2.4E-01 | AJ012585.1 | NT | Tetrahymena thermophila macronuclear gene encoding ribosomal protein L3, exons 1-2 |
| 8798 | 21877 | 35416 | 1.18 | 2.4E-01 | BF242794.1 | EST_HUMAN | 601877679F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4106298 5' |
| 9332 | 22408 | 35961 | 0.58 | 2.4E-01 | AL139077.2 | NT | Campylobacter jejuni NCTC11168 complete genome; segment 4/6 |
| 9332 | 22408 | 35962 | 0.58 | 2.4E-01 | AL139077.2 | NT | Campylobacter jejuni NCTC11168 complete genome; segment 4/6 |
| 9763 | 22701 | 36267 | 8.39 | 2.4E-01 | AI693515.1 | EST_HUMAN | wd43e02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2330906 3' similar to contains MER22.b1 TAR1 repetitive element ; |
| 9905 | 22945 | 36530 | 0.66 | 2.4E-01 | AF220067.1 | NT | Drosophila melanogaster SKPB gene, complete cds |
| 9905 | 22945 | 36531 | 0.66 | 2.4E-01 | AF220067.1 | NT | Drosophila melanogaster SKPB gene, complete cds |
| 10654 | 23688 | 37297 | 1.8 | 2.4E-01 | Q03692 | SWISSPROT | COLLAGEN ALPHA 1(X) CHAIN PRECURSOR |
| 11006 | 24085 | 37722 | 2.15 | 2.4E-01 | AL161494.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 6 |
| 11074 | 24149 | 37788 | 1.96 | 2.4E-01 | AF030199.1 | NT | Mus musculus type 1 *sigma receptor gene, complete cds* |
| 11447 | 24508 | 38174 | 1.8 | 2.4E-01 | BE296917.1 | EST_HUMAN | 601176415F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531843 5' |
| 11447 | 24508 | 38175 | 1.8 | 2.4E-01 | BE296917.1 | EST_HUMAN | 601176415F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531843 5' |
| 11478 | 24537 | | 8.04 | 2.4E-01 | Z21647.1 | NT | P.asiatica mosaic virus genomic RNA |
| 12159 | 25127 | 38827 | 1.75 | 2.4E-01 | AF217491.1 | NT | Homo sapiens fragile 16D oxido reductase (FOR) gene, exon 6 |
| 12289 | 25932 | | 1.35 | 2.4E-01 | AF004213.1 | NT | Arabidopsis thaliana ethylene-insensitive3-like1 (EIL1) mRNA, complete cds |
| 12360 | 25258 | | 1.62 | 2.4E-01 | AJ278191.1 | NT | Mus musculus mRNA for putative mc7 protein (mc7 gene) |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 12588 | 25914 | | 1.95 | 2.4E-01 | V01507.1 | NT | Gallus gallus gene coding for a-actin |
| 12839 | 26151 | | 1.37 | 2.4E-01 | BF229975.1 | EST_HUMAN | RC3-CT0413-100800-023-b06 CT0413 Homo sapiens cDNA |
| 13072 | 25701 | | 1.4 | 2.4E-01 | AJ238044.1 | NT | Homo sapiens mRNA for bradykinin B1 receptor (B1BKR gene) |
| 13102 | 25718 | | 4.16 | 2.4E-01 | AL163281.2 | NT | Homo sapiens chromosome 21 segment HS21C081 |
| 400 | 13597 | 26633 | 1.39 | 2.3E-01 | S75898.1 | NT | aromatase [Poephila guttata=zebra finches, ovary, mRNA, 3188 nt] |
| 654 | 13840 | | 5.53 | 2.3E-01 | U39713.1 | NT | Mycoplasma genitalium section 35 of 51 of the complete genome |
| 684 | 13869 | 26900 | 29.31 | 2.3E-01 | U67596.1 | NT | Methanococcus jannaschii section 138 of 150 of the complete genome |
| 957 | 14130 | 27188 | 3.57 | 2.3E-01 | BE311893.1 | EST_HUMAN | 601142073F1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:3505818 5' |
| 1634 | 14786 | 27872 | 1.11 | 2.3E-01 | AJ245480.1 | NT | Brassica napus slg gene for S-locus glycoprotein, cultivar T2 |
| 1661 | 14813 | 27898 | 1.72 | 2.3E-01 | Y10887.2 | NT | Mus musculus cdh5 gene, exon 1, partial |
| 2103 | 15242 | | 1.78 | 2.3E-01 | AJ235353.1 | NT | Homo sapiens partial intron 3 of the wild type AF-4/FEL gene |
| 2517 | 15643 | 28764 | 1.85 | 2.3E-01 | BE297718.1 | EST_HUMAN | 601175562F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531015 5' |
| 2717 | 15835 | 28945 | 0.98 | 2.3E-01 | M11319.1 | NT | Human erythropoietin gene, complete cds |
| 2885 | 14573 | 27646 | 1.5 | 2.3E-01 | AB015033.1 | NT | Marinilabilia agarovorans gyrB gene for DNA gyrase subunit B, partial cds, strain:IFO 14957 |
| 3028 | 16204 | 29227 | 1.08 | 2.3E-01 | AA601379.1 | EST_HUMAN | no16d06.s1 NCI_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1100843 3' similar to contains Alu repetitive element;contains element THR repetitive element ; |
| 3153 | 16328 | | 7.06 | 2.3E-01 | R21732.1 | EST_HUMAN | yh21b07.s1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:130357 3' |
| 3456 | 16623 | 29644 | 1.32 | 2.3E-01 | H69836.1 | EST_HUMAN | yr97h10.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:213283 5' |
| 3944 | 17103 | 30100 | 0.98 | 2.3E-01 | S82821.1 | NT | GSTA5=glutathione S-transferase Yc2 subunit {5' region, intron 1} [rats, Morris hepatoma cell line, Genomic, 2212 nt, segment 1 of 3] |
| 4046 | 17202 | | 5.15 | 2.3E-01 | 7662133 | NT | Homo sapiens KIAA0450 gene product (KIAA0450), mRNA |
| 4470 | 17610 | 30588 | 0.86 | 2.3E-01 | R82252.1 | EST_HUMAN | yj17f01.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:149017 5' |
| 4520 | 17659 | | 1.91 | 2.3E-01 | L78789.1 | NT | Mus musculus renin (Ren-1c) gene, promoter region |
| 4573 | 17710 | 30693 | 1.12 | 2.3E-01 | D90899.1 | NT | Synechocystis sp. PCC6803 complete genome, 1/27, 1-133859 |
| 4611 | 17748 | 30728 | 2.76 | 2.3E-01 | AF092535.1 | NT | Homo sapiens mitogen-activated protein kinase p38delta (PRKM13) mRNA, complete cds |
| 4676 | 17811 | 30800 | 5.65 | 2.3E-01 | 5031984 | NT | Homo sapiens nuclear transport factor 2 (placental protein 15) (PP15) mRNA |
| 5159 | 18281 | 31246 | 0.87 | 2.3E-01 | AB032400.1 | NT | Mus musculus tulip 1 mRNA, complete cds |
| 5223 | 18345 | | 1.03 | 2.3E-01 | M19364.1 | NT | Human gamma-B-crystallin (gamma 1-2) and gamma-C-crystallin (gamma 2-1) genes, complete cds |
| 5260 | 18379 | 31345 | 0.63 | 2.3E-01 | BF574804.1 | EST_HUMAN | 602132210F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4271547 5' |
| 5419 | 18620 | 31596 | 2.47 | 2.3E-01 | AB040945.1 | NT | Homo sapiens mRNA for KIAA1512 protein, partial cds |
| 5545 | 18742 | 31776 | 2.03 | 2.3E-01 | BF058381.1 | EST_HUMAN | 7k30b06.x1 NCI_CGAP_Ov18 Homo sapiens cDNA clone IMAGE:3476699 3' similar to SW:GAG_SMSAV P03330 GAG POLYPROTEIN [CONTAINS: CORE PROTEIN P15; INNER COAT PROTEIN P12; CORE SHELL PROTEIN P30; NUCLEOPROTEIN P10]. ; |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5647 | 18841 | 32122 | 5.25 | 2.3E-01 | X96587.1 | NT | C.familiaris rom1 gene |
| 5766 | 18958 | | 0.99 | 2.3E-01 | L39112.1 | NT | Vittaforma corneum small subunit ribosomal RNA gene |
| 5870 | 19060 | 32367 | 1.32 | 2.3E-01 | S60371.1 | NT | 23S rRNA [Leuconostoc carnosum, Genomic, 2866 nt] |
| 6062 | 19244 | 32569 | 1.98 | 2.3E-01 | AI708840.1 | EST_HUMAN | as27e12.x1 Barstead aorta HPLRB6 Homo sapiens cDNA clone IMAGE:2318446 3' similar to gb:X13238 CYTOCHROME C OXIDASE POLYPEPTIDE VIC PRECURSOR (HUMAN); |
| 6062 | 19244 | 32570 | 1.98 | 2.3E-01 | AI708840.1 | EST_HUMAN | as27e12.x1 Barstead aorta HPLRB6 Homo sapiens cDNA clone IMAGE:2318446 3' similar to gb:X13238 CYTOCHROME C OXIDASE POLYPEPTIDE VIC PRECURSOR (HUMAN); |
| 6794 | 19949 | 33348 | 0.66 | 2.3E-01 | AF198089.1 | NT | Oryctolagus cuniculus cytochrome oxidase subunit VIa (coxVIa2) mRNA, complete cds; nuclear gene for mitochondrial product |
| 7017 | 20153 | 33573 | 4.63 | 2.3E-01 | AI718148.1 | EST_HUMAN | as42f12.x1 Barstead aorta HPLRB6 Homo sapiens cDNA clone IMAGE:2319887 3' similar to contains Alu repetitive element; |
| 7260 | 20343 | 33795 | 0.86 | 2.3E-01 | 8923323 | NT | Homo sapiens hypothetical protein FLJ20345 (FLJ20345), mRNA |
| 7440 | 20517 | 33989 | 0.76 | 2.3E-01 | AF000227.1 | NT | Secale cereale omega secalin gene, complete cds |
| 7573 | 20645 | 34123 | 2.54 | 2.3E-01 | AF175389.1 | NT | Glycine max resistance protein LM17 precursor RNA, partial cds |
| 7576 | 20648 | 34125 | 5.37 | 2.3E-01 | AV719681.1 | EST_HUMAN | AV719681 GLC Homo sapiens cDNA clone GLCDGB08 5' |
| 7576 | 20648 | 34126 | 5.37 | 2.3E-01 | AV719681.1 | EST_HUMAN | AV719681 GLC Homo sapiens cDNA clone GLCDGB08 5' |
| 7784 | 20840 | | 4.26 | 2.3E-01 | 6754779 | NT | Mus musculus myosin XV (Myo15), mRNA |
| 7789 | 20845 | 34338 | 1.56 | 2.3E-01 | BE888071.1 | EST_HUMAN | 601511573F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912859 5' |
| 7931 | 20981 | | 2.8 | 2.3E-01 | N80983.1 | EST_HUMAN | za12e08.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:292358 5' |
| 7968 | 21018 | 34530 | 0.71 | 2.3E-01 | 11416821 | NT | Homo sapiens protocadherin alpha cluster (LOC63960), mRNA |
| 7968 | 21018 | 34531 | 0.71 | 2.3E-01 | 11416821 | NT | Homo sapiens protocadherin alpha cluster (LOC63960), mRNA |
| 8035 | 21118 | 34637 | 0.52 | 2.3E-01 | AL161558.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 58 |
| 8183 | 21265 | 34788 | 1.73 | 2.3E-01 | M68931.1 | NT | Oxytricha nova macronuclear telomere-binding protein alpha subunit (tel-alpha alanine version) gene, complete cds |
| 8690 | 21770 | 35300 | 0.62 | 2.3E-01 | U57999.1 | NT | Mus musculus prosaposin (psap\SGP-1) gene, complete cds |
| 8972 | 22051 | 35594 | 0.58 | 2.3E-01 | AW090541.1 | EST_HUMAN | xc90e06.x1 NCI_CGAP_Brn35 Homo sapiens cDNA clone IMAGE:2591554 3' |
| 9089 | 22168 | 35715 | 0.52 | 2.3E-01 | AW964460.1 | EST_HUMAN | EST376533 MAGE resequences, MAGH Homo sapiens cDNA |
| 9341 | 22417 | 35970 | 0.64 | 2.3E-01 | AA372164.1 | EST_HUMAN | EST84061 Rhabdomyosarcoma Homo sapiens cDNA 5' end similar to DnaJ homolog (GB:X63368) |
| 9341 | 22417 | 35971 | 0.64 | 2.3E-01 | AA372164.1 | EST_HUMAN | EST84061 Rhabdomyosarcoma Homo sapiens cDNA 5' end similar to DnaJ homolog (GB:X63368) |
| 9780 | 22820 | 36398 | 0.5 | 2.3E-01 | 6679318 | NT | Mus musculus phosphatidylinositol 3-kinase catalytic subunit delta (Pik3cd), mRNA |
| 9930 | 22970 | 36559 | 0.53 | 2.3E-01 | BE277860.1 | EST_HUMAN | 601120110F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2966739 5' |
| 9985 | 23024 | 36616 | 0.81 | 2.3E-01 | AW964460.1 | EST_HUMAN | EST376533 MAGE resequences, MAGH Homo sapiens cDNA |
| 10037 | 23075 | 36675 | 1.57 | 2.3E-01 | X52124.1 | NT | Haemophilus influenzae genes for HincII restriction-modification system (HincII methyltransferase (EC 2.1.1.72) and HincII endonuclease (EC 3.1.21.4)) |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10071 | 23109 | 36712 | 0.63 | 2.3E-01 | AW364633.1 | EST_HUMAN | PM2-DT0036-281299-001-f04 DT0036 Homo sapiens cDNA |
| 10138 | 23176 | 36773 | 2.62 | 2.3E-01 | BE173060.1 | EST_HUMAN | MR0-HT0559-240400-014-g11 HT0559 Homo sapiens cDNA |
| 10197 | 23234 | 36823 | 2.48 | 2.3E-01 | AJ293261.1 | NT | Rhizobium leguminosarum partial genomic DNA for exopolysaccharide biosynthesis genes |
| 10658 | 23692 | 37302 | 0.94 | 2.3E-01 | AF201929.1 | NT | Murine hepatitis virus strain 2, complete genome |
| 10671 | 23705 |  | 5.89 | 2.3E-01 | BF133577.1 | EST_HUMAN | 601646165R2 NIH_MGC_59 Homo sapiens cDNA clone IMAGE:4102092 3' |
| 11465 | 24524 | 38195 | 2.24 | 2.3E-01 | AJ250189.1 | NT | Mus musculus partial mRNA for muscle protein 534 (mg534 gene) |
| 11465 | 24524 | 38196 | 2.24 | 2.3E-01 | AJ250189.1 | NT | Mus musculus partial mRNA for muscle protein 534 (mg534 gene) |
| 11633 | 24713 | 38404 | 2.43 | 2.3E-01 | AE002167.2 | NT | Chlamydophila pneumoniae AR39, section 4 of 94 of the complete genome |
| 12099 | 25079 |  | 1.36 | 2.3E-01 | AV709736.1 | EST_HUMAN | AV709736 ADC Homo sapiens cDNA clone ADCAGH01 5' |
| 12281 | 25210 |  | 3.07 | 2.3E-01 | U45426.1 | NT | Borrelia burgdorferi 2.9-6 locus, ORF-A-D genes, complete cds and REP+ gene, partial cds |
| 12370 | 25264 |  | 48.78 | 2.3E-01 | T27231.1 | EST_HUMAN | HCOEST44 HT29M6 Homo sapiens cDNA clone HCoE44 5' |
| 12395 | 25873 |  | 1.23 | 2.3E-01 | AA089819.1 | EST_HUMAN | chn1424.seq.F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA 5' |
| 12464 | 26086 | 31657 | 4.08 | 2.3E-01 | AW303623.1 | EST_HUMAN | xv21d07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2813773 3' similar to TR:Q9Z175 Q9Z175 LYSYL OXIDASE-RELATED PROTEIN 2. ;contains PTR5.b2 TAR1 repetitive element ; |
| 12500 | 26143 | 31552 | 7.05 | 2.3E-01 | BE882464.1 | EST_HUMAN | 601507202F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3908689 5' |
| 12553 | 25376 |  | 1.77 | 2.3E-01 | BF663319.1 | EST_HUMAN | 602144459F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4297719 5' |
| 12612 | 25411 |  | 2.74 | 2.3E-01 | AJ006519.1 | NT | Rattus norvegicus mRNA for acid gated ion channel |
| 12708 | 25470 |  | 1.22 | 2.3E-01 | U49645.1 | NT | Pleurodeles waltl distal-less like protein PwDlx-3 (PwDlx-3) mRNA, complete cds |
| 12712 | 25411 |  | 1.84 | 2.3E-01 | AJ006519.1 | NT | Rattus norvegicus mRNA for acid gated ion channel |
| 13009 | 25665 |  | 2.36 | 2.3E-01 | BF475611.1 | EST_HUMAN | nac39h12.x1 Lupski_sciatic_nerve Homo sapiens cDNA clone IMAGE:3395950 3' similar to contains element MER38 repetitive element ; |
| 92 | 13327 | 26355 | 1.13 | 2.2E-01 | AI052190.1 | EST_HUMAN | oz14a10.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1675290 3' similar to TR:Q13040 Q13040 ATP-BINDING CASSETTE PROTEIN ; |
| 1596 | 14749 | 27833 | 2.74 | 2.2E-01 | AF187850.1 | NT | Homo sapiens PPAR delta gene, promoter region |
| 2155 | 15291 | 28418 | 2.19 | 2.2E-01 | M34640.1 | NT | Fresh-water sponge Emf1 alpha collagen (COLF1) gene |
| 2476 | 15603 | 28728 | 7.16 | 2.2E-01 | BF677638.1 | EST_HUMAN | 602085608F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4249969 5' |
| 2654 | 15777 | 28890 | 1.63 | 2.2E-01 | BE618258.1 | EST_HUMAN | 601462629F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3866190 5' |
| 2654 | 15777 | 28891 | 1.63 | 2.2E-01 | BE618258.1 | EST_HUMAN | 601462629F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3866190 5' |
| 2946 | 16123 | 29136 | 4.94 | 2.2E-01 | BE155625.1 | EST_HUMAN | PM2-HT0353-281299-003-a12 HT0353 Homo sapiens cDNA |
| 2946 | 16123 | 29137 | 4.94 | 2.2E-01 | BE155625.1 | EST_HUMAN | PM2-HT0353-281299-003-a12 HT0353 Homo sapiens cDNA |
| 2987 | 16163 |  | 2.07 | 2.2E-01 | AF020503.1 | NT | Homo sapiens FRA3B common fragile region, diadenosine triphosphate hydrolase (FHIT) gene, exon 5 |
| 3479 | 16646 |  | 2.35 | 2.2E-01 | AL161562.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 62 |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3848 | 17008 | 30009 | 0.62 | 2.2E-01 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 4211 | 17360 | 30349 | 0.69 | 2.2E-01 | AF213391.1 | NT | Mus musculus ATP-binding cassette protein (Abcb8) mRNA, partial cds |
| 4242 | 17388 | | 0.6 | 2.2E-01 | U68174.1 | NT | Mus musculus breast/ovarian cancer susceptibility protein (BRCA1) mRNA, complete cds |
| 4328 | 17471 | | 1.07 | 2.2E-01 | AF119102.1 | NT | Drosophila melanogaster UNC-119 (unc-119) gene, complete cds |
| 4335 | 17478 | 30460 | 6.62 | 2.2E-01 | AF155142.1 | NT | Mus musculus mixed lineage kinase 3 (Mlk3) and two pore domain K+ channel subunit (Kcnk6) genes, complete cds |
| 4379 | 17522 | 30502 | 2.74 | 2.2E-01 | AF117340.1 | NT | Mus musculus MAP kinase kinase kinase 1 (Mekk1) mRNA, complete cds |
| 4379 | 17522 | 30503 | 2.74 | 2.2E-01 | AF117340.1 | NT | Mus musculus MAP kinase kinase kinase 1 (Mekk1) mRNA, complete cds |
| 4475 | 17615 | 30595 | 1.07 | 2.2E-01 | U01307.1 | NT | Human scRNA (BC200 beta) pseudogene |
| 4475 | 17615 | 30596 | 1.07 | 2.2E-01 | U01307.1 | NT | Human scRNA (BC200 beta) pseudogene |
| 4947 | 18077 | | 1.08 | 2.2E-01 | D50604.1 | NT | Human beta-cytoplasmic actin (ACTBP9) pseudogene |
| 4952 | 18082 | 31058 | 2.2 | 2.2E-01 | AA211216.1 | EST_HUMAN | zq87c05.r1 Stratagene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:648968 5' |
| 5156 | 18278 | | 1.57 | 2.2E-01 | L13299.1 | NT | Mus musculus vinculin gene, exon 3 |
| 5226 | 18348 | 31319 | 1.34 | 2.2E-01 | BE141035.1 | EST_HUMAN | MR0-HT0067-201099-002-c10 HT0067 Homo sapiens cDNA |
| 5863 | 19053 | 32360 | 1.89 | 2.2E-01 | 5803002 | NT | Homo sapiens diaphanous (Drosophila, homolog) 2 (DIAPH2), transcript variant 156, mRNA |
| 5874 | 19064 | | 3.75 | 2.2E-01 | D64000.1 | NT | Synechocystis sp. PCC6803 complete genome, 19/27, 2392729-2538999 |
| 6122 | 19301 | 32640 | 0.78 | 2.2E-01 | U67087.1 | NT | Gallus gallus T-box containing protein (Ch-TbxT) mRNA, complete cds |
| 6122 | 19301 | 32641 | 0.78 | 2.2E-01 | U67087.1 | NT | Gallus gallus T-box containing protein (Ch-TbxT) mRNA, complete cds |
| 6845 | 19998 | 33405 | 0.77 | 2.2E-01 | AB038490.1 | NT | Homo sapiens gene for fukutin, complete cds |
| 7166 | 20299 | 33742 | 10.63 | 2.2E-01 | AV756238.1 | EST_HUMAN | AV756238 BM Homo sapiens cDNA clone BMFAHC06 5' |
| 7279 | 20362 | 33815 | 1.61 | 2.2E-01 | AF082738.1 | NT | Streptococcus pyogenes phosphotidylglycerophosphate synthase (pgsA) and ABC transporter ATP-binding protein (stpA) genes, complete cds; and unknown genes |
| 7279 | 20362 | 33816 | 1.61 | 2.2E-01 | AF082738.1 | NT | Streptococcus pyogenes phosphotidylglycerophosphate synthase (pgsA) and ABC transporter ATP-binding protein (stpA) genes, complete cds; and unknown genes |
| 7442 | 20519 | 33991 | 2.36 | 2.2E-01 | M24136.1 | NT | Human glycophorin B gene, exon 4 |
| 7442 | 20519 | 33992 | 2.36 | 2.2E-01 | M24136.1 | NT | Human glycophorin B gene, exon 4 |
| 7655 | 20723 | 34199 | 0.62 | 2.2E-01 | AE000035.2 | NT | Mycoplasma pneumoniae M129 section 45 of 63 of the complete genome |
| 7878 | 20930 | 34436 | 0.88 | 2.2E-01 | AF287967.1 | NT | Homo sapiens homeobox B7 (HOXB7) gene, partial cds; and homeobox B6 (HOXB6), homeobox B5 (HOXB5), homeobox B4 (HOXB4), and homeobox B3 (HOXB3) genes, complete cds |
| 7905 | 20957 | 34463 | 0.71 | 2.2E-01 | AB024553.1 | NT | Bacillus halodurans DNA, complete and partial cds, strain:C-125 |
| 8210 | 21292 | | 2.45 | 2.2E-01 | AF155143.1 | NT | Mus musculus nm23-M1 gene, promoter region |
| 8280 | 21362 | 34881 | 2.68 | 2.2E-01 | Z49933.1 | NT | E.coli sepA and sepB genes |
| 8748 | 21827 | 35363 | 0.61 | 2.2E-01 | AJ132918.1 | NT | Pan troglodytes MeCP2 gene 3'UTR |
| 9083 | 22162 | 35705 | 0.52 | 2.2E-01 | L23312.1 | NT | Mouse HD protein mRNA, complete cds |

### Table 4
### Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9083 | 22162 | 35706 | 0.52 | 2.2E-01 | L23312.1 | NT | Mouse HD protein mRNA, complete cds |
| 9097 | 22176 | 35720 | 4.58 | 2.2E-01 | AE001713.1 | NT | Thermotoga maritima section 25 of 136 of the complete genome |
| 9117 | 22196 | 35740 | 0.48 | 2.2E-01 | U09964.1 | NT | Mus musculus ICR/Swiss glyceraldehyde 3-phosphate dehydrogenase (Gapd-S) gene, complete cds |
| 9224 | 22302 |  | 2.88 | 2.2E-01 | AW855039.1 | EST_HUMAN | PM3-CT0263-241299-009-b07 CT0263 Homo sapiens cDNA |
| 9315 | 22391 | 35942 | 1.98 | 2.2E-01 | 8393247 | NT | Mus musculus deformed epidermal autoregulatory factor 1 (Drosophila) (Deaf1), mRNA |
| 9399 | 22473 | 36039 | 1.13 | 2.2E-01 | BF376354.1 | EST_HUMAN | MR1-TN0045-110900-006-c02 TN0045 Homo sapiens cDNA |
| 9489 | 22546 | 36109 | 1.42 | 2.2E-01 | W02988.1 | EST_HUMAN | za04f08.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:291591 5' |
| 9507 | 22773 | 36345 | 15.08 | 2.2E-01 | P48634 | SWISSPROT | LARGE PROLINE-RICH PROTEIN BAT2 (HLA-B-ASSOCIATED TRANSCRIPT 2) |
| 9552 | 22617 | 36187 | 0.76 | 2.2E-01 | AJ009839.1 | NT | Xenopus laevis mRNA for kinesin-like protein 3 (xklp3) |
| 9563 | 22705 | 36271 | 1.05 | 2.2E-01 | 7657428 | NT | Mus musculus osteoblast specific factor 2 (OSF-2), mRNA |
| 9576 | 22718 | 36286 | 4.29 | 2.2E-01 | M89643.1 | NT | Brachydanio rerio ependymin beta and gamma chains (Epd) gene, complete cds |
| 9820 | 22860 | 36441 | 0.65 | 2.2E-01 | Q90980 | SWISSPROT | CYCLIC NUCLEOTIDE GATED CHANNEL, ROD PHOTORECEPTOR, ALPHA SUBUNIT (CNG CHANNEL 3) (CNG-3) (CNG3) |
| 10020 | 23058 | 36654 | 3.84 | 2.2E-01 | AF197941.1 | NT | Funaria hygrometrica chloroplast-localized small heat shock protein (CPsHSP21) mRNA, complete cds; nuclear gene for chloroplast product |
| 10159 | 23196 | 36792 | 1.53 | 2.2E-01 | BF206507.1 | EST_HUMAN | 601869724F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4100189 5' |
| 10380 | 23415 | 37024 | 1.11 | 2.2E-01 | 9625671 | NT | Human herpesvirus 5, complete genome |
| 10540 | 23575 | 37182 | 0.65 | 2.2E-01 | T59472.1 | EST_HUMAN | yb63d08.r1 Stratagene ovary (#937217) Homo sapiens cDNA clone IMAGE:75855 5' |
| 10540 | 23575 | 37183 | 0.65 | 2.2E-01 | T59472.1 | EST_HUMAN | yb63d08.r1 Stratagene ovary (#937217) Homo sapiens cDNA clone IMAGE:75855 5' |
| 10580 | 23615 | 37220 | 0.6 | 2.2E-01 | AF068264.1 | NT | Pseudomonas aeruginosa quinoprotein ethanol dehydrogenase (exaA) gene, partial cds; cytochrome c550 precursor (exaB), NAD+ dependent acetaldehyde dehydrogenase (exaC), and pyrroloquinoline quinone synthesis A (pqqA) genes, complete cds; and pyrroloquin> |
| 10659 | 23693 |  | 0.79 | 2.2E-01 | AF071001.1 | NT | Mus musculus PHR1 (Phr1) gene, partial cds |
| 10707 | 23740 | 37344 | 0.57 | 2.2E-01 | AE001562.1 | NT | Helicobacter pylori, strain J99 section 123 of 132 of the complete genome |
| 10707 | 23740 | 37345 | 0.57 | 2.2E-01 | AE001562.1 | NT | Helicobacter pylori, strain J99 section 123 of 132 of the complete genome |
| 10853 | 23886 | 37505 | 0.48 | 2.2E-01 | AF049720.1 | NT | Homo sapiens neuronal nitric oxide synthase (NOS1) gene, alternative exons 1i and AS |
| 11389 | 24450 | 38111 | 1.65 | 2.2E-01 | AF257772.1 | NT | Homo sapiens RNA binding protein MCG10 gene, complete cds, alternatively spliced |
| 11707 | 24704 | 38396 | 5.09 | 2.2E-01 | X01918.1 | NT | Drosophila 68C glue gene cluster |
| 11748 | 23934 | 37560 | 3.7 | 2.2E-01 | 7706215 | NT | Homo sapiens H-2K binding factor-2 (LOC51580), mRNA |
| 12207 | 25161 |  | 1.33 | 2.2E-01 | BE870959.1 | EST_HUMAN | 601446957F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3860670 5' |
| 12319 | 26156 |  | 1.96 | 2.2E-01 | U82671.2 | NT | Homo sapiens chromosome Xq28 melanoma antigen family A2a (MAGEA2A), melanoma antigen family A12 (MAGEA12), melanoma antigen family A2b (MAGEA2B), melanoma antigen family A3 (MAGEA3), caltractin (CALT), NAD(P)H dehydrogenase-like protein (NSDHL), and LI> |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 12407 | 25286 | | 3.24 | 2.2E-01 | AF188843.1 | NT | Vitis vinifera cultivar Pinot Noir plasma membrane aquaporin (PIP1a) mRNA, complete cds |
| 12518 | 18492 | 31631 | 1.86 | 2.2E-01 | AW361098.1 | EST_HUMAN | RC1-CT0249-141199-021-g04 CT0249 Homo sapiens cDNA |
| 12519 | 25353 | | 1.47 | 2.2E-01 | AW661922.1 | EST_HUMAN | hl17b02.x1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2972523 3' |
| 13115 | 26148 | | 3.08 | 2.2E-01 | AV694801.1 | EST_HUMAN | AV694801 GKC Homo sapiens cDNA clone GKCAHB02 5' |
| 993 | 14165 | 27226 | 1.88 | 2.1E-01 | AA569289.1 | EST_HUMAN | nm31e11.s1 NCI_CGAP_Lip2 Homo sapiens cDNA clone IMAGE:1061804 |
| 996 | 14167 | 27228 | 0.72 | 2.1E-01 | AL161604.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 16 |
| 1148 | 14312 | | 2.43 | 2.1E-01 | AE002314.2 | NT | Chlamydia muridarum, section 45 of 85 of the complete genome |
| 1225 | 14385 | 27446 | 1.45 | 2.1E-01 | 6754299 | NT | Mus musculus interferon (alpha and beta) receptor 2 (Ifnar2), mRNA |
| 1225 | 14385 | 27447 | 1.45 | 2.1E-01 | 6754299 | NT | Mus musculus interferon (alpha and beta) receptor 2 (Ifnar2), mRNA |
| 1540 | 14692 | 27771 | 4.29 | 2.1E-01 | AJ249895.1 | NT | Mus musculus mas proto-oncogene and Igf2r gene for insulin-like growth factor type 2 and L41ps and Au76 pseudogenes |
| 1963 | 15106 | 28206 | 2.15 | 2.1E-01 | AA906824.1 | EST_HUMAN | ok73e02.s1 NCI_CGAP_GC4 Homo sapiens cDNA clone IMAGE:1519610 3' similar to gb:K02765 COMPLEMENT C3 PRECURSOR (HUMAN); |
| 2224 | 15358 | 28488 | 3.55 | 2.1E-01 | BF695073.1 | EST_HUMAN | 602083129F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4247503 5' |
| 2991 | 16167 | 29183 | 2.52 | 2.1E-01 | 6912445 | NT | Homo sapiens potassium voltage-gated channel, subfamily H (eag-related), member 4 (KCNH4), mRNA |
| 3533 | 16698 | 29709 | 6.1 | 2.1E-01 | AA639482.1 | EST_HUMAN | nq90b10.s1 NCI_CGAP_Co9 Homo sapiens cDNA clone IMAGE:1159579 3' |
| 3908 | 17067 | | 5.81 | 2.1E-01 | 9838361 | NT | Beta vulgaris mitochondrion, complete genome |
| 4125 | 17279 | | 0.67 | 2.1E-01 | AE001793.1 | NT | Thermotoga maritima section 105 of 136 of the complete genome |
| 4165 | 17315 | 30310 | 1.57 | 2.1E-01 | P11675 | SWISSPROT | IMMEDIATE-EARLY PROTEIN IE180 |
| 4165 | 17315 | 30311 | 1.67 | 2.1E-01 | P11675 | SWISSPROT | IMMEDIATE-EARLY PROTEIN IE180 |
| 4495 | 17635 | | 1.63 | 2.1E-01 | AB033041.1 | NT | Homo sapiens mRNA for KIAA1215 protein, partial cds |
| 4699 | 17834 | 30819 | 1.82 | 2.1E-01 | AB010273.1 | NT | Homo sapiens pshep47 gene, complete cds |
| 4757 | 17892 | 30871 | 0.93 | 2.1E-01 | X93161.1 | NT | P.falciparum mRNA for small GTPase rab11 |
| 5138 | 18261 | 31228 | 0.7 | 2.1E-01 | D13567.1 | NT | Lampetra japonica mRNA for alpha-2-macroglobulin, complete cds |
| 5416 | 18618 | 31592 | 6.31 | 2.1E-01 | BF672695.1 | EST_HUMAN | 602152001F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4293001 5' |
| 7027 | 20163 | 33585 | 1.05 | 2.1E-01 | AJ223392.1 | NT | Doto fragilis mitochondrial 16S rRNA gene, partial |
| 7038 | 20091 | 33508 | 1.8 | 2.1E-01 | U04642.1 | NT | Human olfactory receptor (OR17-2) gene, partial cds |
| 7564 | 20636 | 34111 | 0.77 | 2.1E-01 | Q01956 | SWISSPROT | VOLTAGE-GATED POTASSIUM CHANNEL PROTEIN KV3.3 (KSHIIID) |
| 7564 | 20636 | 34112 | 0.77 | 2.1E-01 | Q01956 | SWISSPROT | VOLTAGE-GATED POTASSIUM CHANNEL PROTEIN KV3.3 (KSHIIID) |
| 7576 | 20647 | | 1.88 | 2.1E-01 | AE000972.1 | NT | Archaeoglobus fulgidus section 135 of 172 of the complete genome |
| 7883 | 20935 | 34441 | 1.54 | 2.1E-01 | AF000949.1 | NT | Canis familiaris keratin (KRT9) gene, complete cds |
| 7930 | 20980 | 34488 | 1.38 | 2.1E-01 | AF068687.1 | NT | Glycine max malate dehydrogenase (Mdh-2) gene, nuclear gene encoding mitochondrial protein, partial cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7930 | 20980 | 34489 | 1.38 | 2.1E-01 | AF068687.1 | NT | Glycine max malate dehydrogenase (Mdh-2) gene, nuclear gene encoding mitochondrial protein, partial cds |
| 8263 | 21345 | | 1.21 | 2.1E-01 | 7305030 | NT | Mus musculus erythrocyte protein band 4.1-like 3 (Epb4.1l3), mRNA |
| 8700 | 21780 | 36313 | 4.76 | 2.1E-01 | U68399.1 | NT | Haemophilus influenzae hmcD, putative haemocin processing protein (hmcC), putative ABC transporter (hmcB), putative haemocin structural protein (hmcA), and haemocin immunity protein (hmcl) genes, complete cds |
| 8997 | 22076 | 35615 | 0.91 | 2.1E-01 | AL040537.1 | EST_HUMAN | DKFZp434H0614_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434H0614 5' |
| 8997 | 22076 | 35616 | 0.91 | 2.1E-01 | AL040537.1 | EST_HUMAN | DKFZp434H0614_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434H0614 5' |
| 9159 | 22237 | | 0.5 | 2.1E-01 | AB022524.1 | NT | Homo sapiens APCL gene, exon 9 |
| 9237 | 22314 | 35856 | 6.7 | 2.1E-01 | Z35786.1 | NT | S.cerevisiae chromosome II reading frame ORF YBL025w |
| 9704 | 22753 | 36323 | 0.66 | 2.1E-01 | N42536.1 | EST_HUMAN | yy11e10.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:270954 5' |
| 9704 | 22753 | 36324 | 0.66 | 2.1E-01 | N42536.1 | EST_HUMAN | yy11e10.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:270954 5' |
| 9713 | 22778 | 36348 | 2.72 | 2.1E-01 | X97378.1 | NT | A.thaliana mRNA for AtRanBP1b protein |
| 9817 | 22857 | 36437 | 1.02 | 2.1E-01 | AB036529.1 | NT | Homo sapiens p53R2 gene for ribonucleotide reductase, exon 6 |
| 10535 | 23570 | 37178 | 1.31 | 2.1E-01 | Z97067.1 | NT | Beta vulgaris mRNA for elongation factor 1-beta |
| 10569 | 23604 | 37209 | 1.97 | 2.1E-01 | P52824 | SWISSPROT | DIACYLGLYCEROL KINASE, DELTA (DIGLYCERIDE KINASE) (DGK-DELTA) (DAG KINASE DELTA) (80 KD DIACYLGLYCEROL KINASE) |
| 10576 | 23611 | 37216 | 0.72 | 2.1E-01 | BF574254.1 | EST_HUMAN | 602131427F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4270831 5' |
| 11776 | 24768 | | 1.34 | 2.1E-01 | AI141875.1 | EST_HUMAN | qa66f08.x1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:1691751 3' |
| 11862 | 24850 | | 1.68 | 2.1E-01 | 11036647 | NT | Homo sapiens pancreatic polypeptide 2 (PPY2), mRNA |
| 11879 | 24867 | 38565 | 2.6 | 2.1E-01 | BE180422.1 | EST_HUMAN | RC3-HT0622-040500-013-b11 HT0622 Homo sapiens cDNA |
| 12688 | 25459 | | 1.92 | 2.1E-01 | AF217490.1 | NT | Homo sapiens fragile 16D oxido reductase (FOR) gene, exons 8, 9, and partial cds |
| 12994 | 25646 | | 1.39 | 2.1E-01 | BE622149.1 | EST_HUMAN | 601440712F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3915675 5' |
| 13158 | 25763 | 31926 | 1.19 | 2.1E-01 | AJ276505.1 | NT | Mus musculus genomic fragment, 279 Kb, chromosome 7 |
| 205 | 13428 | 26460 | 1.92 | 2.0E-01 | AB017437.1 | NT | Gallus gallus mRNA for avena, complete cds |
| 547 | 13740 | | 1.97 | 2.0E-01 | 7705601 | NT | Homo sapiens CGI-18 protein (LOC51008), mRNA |
| 717 | 13899 | 26937 | 1.37 | 2.0E-01 | M77086.1 | NT | O.cunniculus germline IgH heavy chain V-H pseudogene, allotype VHa2 |
| 833 | 14011 | 27067 | 2.09 | 2.0E-01 | AF027865.1 | NT | Mus musculus Major Histocompatibility Locus class II region |
| 1036 | 14204 | 27261 | 1.83 | 2.0E-01 | D90905.1 | NT | Synechocystis sp. PCC6803 complete genome, 7/27, 781449-920915 |
| 1149 | 14313 | 27369 | 2.81 | 2.0E-01 | AL163213.2 | NT | Homo sapiens chromosome 21 segment HS21C013 |
| 1283 | 14439 | 27508 | 1.19 | 2.0E-01 | AJ132695.5 | NT | Homo sapiens rac1 gene |
| 1336 | 14493 | 27563 | 1.99 | 2.0E-01 | AW384937.1 | EST_HUMAN | PM1-HT0422-291299-002-c06 HT0422 Homo sapiens cDNA |
| 1516 | 14669 | 27752 | 22.4 | 2.0E-01 | 4503408 | NT | Homo sapiens dystrobrevin, alpha (DTNA), mRNA |
| 1582 | 14734 | 27815 | 2.68 | 2.0E-01 | AB007974.1 | NT | Homo sapiens mRNA, chromosome 1 specific transcript KIAA0505 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1588 | 14740 | 27821 | 3.48 | 2.0E-01 | AF260700.1 | NT | Homo sapiens sodium/iodide symporter mRNA, partial cds |
| 1732 | 14882 | 27973 | 0.96 | 2.0E-01 | U22346.1 | NT | Human bradykinin B1 receptor (bradyb1) gene, complete cds |
| 1755 | 14904 | | 2.58 | 2.0E-01 | AF111170.3 | NT | Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene |
| 1796 | 14945 | | 3.87 | 2.0E-01 | U67525.1 | NT | Methanococcus jannaschii section 67 of 150 of the complete genome |
| 1941 | 15084 | 28185 | 1.46 | 2.0E-01 | 8922238 | NT | Homo sapiens hypothetical protein FLJ10120 (FLJ10120), mRNA |
| 2423 | 15552 | | 1.9 | 2.0E-01 | X82877.1 | NT | H.sapiens Na+-D-glucose cotransport regulator gene |
| 2955 | 16132 | | 0.79 | 2.0E-01 | AF074990.1 | NT | Homo sapiens full length insert cDNA YH85A11 |
| 3576 | 16741 | 29758 | 0.72 | 2.0E-01 | P46607 | SWISSPROT | HOMEOBOX PROTEIN GLABRA2 (HOMEOBOX-LEUCINE ZIPPER PROTEIN ATHB-10) (HD-ZIP PROTEIN ATHB-10) |
| 3658 | 16821 | | 0.91 | 2.0E-01 | AW238005.1 | EST_HUMAN | xp15b02.x1 NCI_CGAP_HN9 Homo sapiens cDNA clone IMAGE:2740395 3' similar to contains element MER21 repetitive element ; |
| 3798 | 16959 | 29963 | 0.86 | 2.0E-01 | P34641 | SWISSPROT | CED-11 PROTEIN |
| 3802 | 16963 | | 0.6 | 2.0E-01 | 6680797 | NT | Mus musculus bone morphogenetic protein 6 (Bmp6), mRNA |
| 4688 | 17823 | | 8.71 | 2.0E-01 | BE828165.1 | EST_HUMAN | QV4-EN0032-180500-223-e03 EN0032 Homo sapiens cDNA |
| 5152 | 18274 | 31243 | 6.41 | 2.0E-01 | 8922080 | NT | Homo sapiens hypothetical protein ASH1 (ASH1), mRNA |
| 5243 | 16959 | 29963 | 0.6 | 2.0E-01 | P34641 | SWISSPROT | CED-11 PROTEIN |
| 5561 | 18758 | 31797 | 2.55 | 2.0E-01 | X56600.1 | NT | Rat SOD-2 gene for manganese-containing superoxide dismutase |
| 5859 | 19049 | 32355 | 2.08 | 2.0E-01 | 11432540 | NT | Homo sapiens dual oxidase-like domains 2 (DUOX2), mRNA |
| 5963 | 19149 | 32464 | 0.82 | 2.0E-01 | X91856.1 | NT | F.rubripes DNA encoding for valyl-tRNA synthetase |
| 6185 | 19361 | 32709 | 5.99 | 2.0E-01 | U15300.1 | NT | Saccharomyces cerevisiae Hal5p (HAL5) mRNA, complete cds |
| 6303 | 19476 | | 0.74 | 2.0E-01 | M75967.1 | NT | Human hepatocyte growth factor gene, exon 1 |
| 6559 | 19721 | 33098 | 47.65 | 2.0E-01 | X61033.1 | NT | M.auratus mu class glutathione transferase gene |
| 6659 | 19818 | 33206 | 3.74 | 2.0E-01 | AW360865.1 | EST_HUMAN | PM1-CT0247-141099-001-g06 CT0247 Homo sapiens cDNA |
| 7445 | 20522 | 33995 | 1.41 | 2.0E-01 | AF250371:1 | NT | Mus musculus phosphofructokinase-1 C isozyme (Pfkc) gene, exons 3 through 7 |
| 7603 | 20673 | 34147 | 0.83 | 2.0E-01 | P54422 | SWISSPROT | GAMMA-GLUTAMYLTRANSPEPTIDASE PRECURSOR |
| 8139 | 21221 | | 6.16 | 2.0E-01 | AF028026.1 | NT | Andes virus strain OI23133 glycoprotein G1 and G2 precursor, gene, partial cds |
| 8395 | 21476 | 35003 | 3.12 | 2.0E-01 | X91151.1 | NT | M.musculus scp2 gene exon 14 |
| 8921 | 22000 | | 0.48 | 2.0E-01 | BE562247.1 | EST_HUMAN | 601344648F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3677794 5' |
| 9551 | 22616 | 36186 | 1.17 | 2.0E-01 | U82511.1 | NT | Dictyostelium discoideum random slug cDNA19 protein (rsc19) mRNA, partial cds |
| 9590 | 22645 | 36215 | 0.62 | 2.0E-01 | U71122.1 | NT | Arabidopsis pyruvate decarboxylase-2 (Pdc2) gene, complete cds |
| 9756 | 22694 | | 5.42 | 2.0E-01 | AE001278.1 | NT | Chlamydia trachomatis section 5 of 87 of the complete genome |
| 9947 | 22986 | 36579 | 0.52 | 2.0E-01 | P11420 | SWISSPROT | DAUGHTERLESS PROTEIN |
| 9947 | 22986 | 36580 | 0.62 | 2.0E-01 | P11420 | SWISSPROT | DAUGHTERLESS PROTEIN |
| 10095 | 23133 | | 2.24 | 2.0E-01 | AF146692.1 | NT | Homo sapiens filamin 2 (FLN2) mRNA, complete cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10247 | 23282 | 36878 | 1.89 | 2.0E-01 | AF086907.1 | NT | Arabidopsis thaliana root gravitropism control protein (PIN2) gene, complete cds |
| 10247 | 23282 | 36879 | 1.89 | 2.0E-01 | AF086907.1 | NT | Arabidopsis thaliana root gravitropism control protein (PIN2) gene, complete cds |
| 10371 | 23406 | 37016 | 0.67 | 2.0E-01 | AF157814.1 | NT | Homo sapiens cAMP specific phosphodiesterase (PDE4C) gene, exons 2 through 12 |
| 10371 | 23406 | 37017 | 0.67 | 2.0E-01 | AF157814.1 | NT | Homo sapiens cAMP specific phosphodiesterase (PDE4C) gene, exons 2 through 12 |
| 10419 | 23454 | | 0.8 | 2.0E-01 | X78388.1 | NT | D.melanogaster DNA mobile element (hoppel) |
| 10616 | 23650 | 37259 | 0.88 | 2.0E-01 | X97121.1 | NT | R.norvegicus mRNA for NTR2 receptor |
| 11079 | 24154 | 37791 | 2.12 | 2.0E-01 | D89088.1 | NT | Salvelinus pluvius mRNA for transferrin, complete cds |
| 11079 | 24154 | 37792 | 2.12 | 2.0E-01 | D89088.1 | NT | Salvelinus pluvius mRNA for transferrin, complete cds |
| 11908 | 24895 | 38597 | 1.33 | 2.0E-01 | 7524759 | NT | Chlorella vulgaris chloroplast, complete genome |
| 11908 | 24895 | 38598 | 1.33 | 2.0E-01 | 7524759 | NT | Chlorella vulgaris chloroplast, complete genome |
| 12666 | 25443 | | 1.24 | 2.0E-01 | AF206637.2 | NT | Pimephales promelas liver glucose-6-phosphate-1-dehydrogenase mRNA, partial cds |
| 12899 | 25965 | | 1.64 | 2.0E-01 | AF302773.1 | NT | Homo sapiens ninein-Lm isoform (ninein) mRNA, complete cds |
| 12912 | 25876 | 31851 | 1.63 | 2.0E-01 | AW975297.1 | EST_HUMAN | EST387405 MAGE resequences, MAGN Homo sapiens cDNA |
| 12952 | 25662 | 31956 | 1.63 | 2.0E-01 | AI023592.1 | EST_HUMAN | ov80a10.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1643610 3' |
| 12977 | 25636 | | 17.48 | 2.0E-01 | AF078164.2 | NT | Homo sapiens Ku70-binding protein (KUB3) mRNA, partial cds |
| 113 | 13344 | | 4.89 | 1.9E-01 | 7549743 | NT | Rattus norvegicus Aryl hydrocarbon receptor nuclear translocator 1 (Arnt1), mRNA |
| 362 | 13573 | 26604 | 5.58 | 1.9E-01 | AF004353.1 | NT | Mus musculus pale ear (ep) gene, wild type allele, 3' region, partial cds |
| 673 | 13859 | 26889 | 1.54 | 1.9E-01 | U32581.2 | NT | Homo sapiens lambda/iota protein kinase C-interacting protein mRNA, complete cds |
| 673 | 13859 | 26890 | 1.54 | 1.9E-01 | U32581.2 | NT | Homo sapiens lambda/iota protein kinase C-interacting protein mRNA, complete cds |
| 680 | 13866 | 26897 | 8.31 | 1.9E-01 | BE070801.1 | EST_HUMAN | RC3-BT0502-251199-011-d01 BT0502 Homo sapiens cDNA |
| 681 | 13866 | 26897 | 6.7 | 1.9E-01 | BE070801.1 | EST_HUMAN | RC3-BT0502-251199-011-d01 BT0502 Homo sapiens cDNA |
| 1010 | 14181 | | 1.72 | 1.9E-01 | 7305180 | NT | Mus musculus interleukin 2 receptor, gamma chain (Il2rg), mRNA |
| 1128 | 14293 | 27349 | 5.63 | 1.9E-01 | AA358813.1 | EST_HUMAN | EST67784 Fetal lung II Homo sapiens cDNA 5' end |
| 1401 | 14555 | 27629 | 2.42 | 1.9E-01 | AF061282.1 | NT | Sorghum bicolor 22 kDa kafirin cluster |
| 1466 | 14620 | | 4.34 | 1.9E-01 | AF184623.1 | NT | Plasmodium vivax reticulocyte binding protein-2 (rbp-2) gene, complete cds |
| 2456 | 15584 | 28711 | 3.66 | 1.9E-01 | 8922533 | NT | Homo sapiens hypothetical protein FLJ10581 (FLJ10581), mRNA |
| 2989 | 16165 | 29181 | 3.81 | 1.9E-01 | U66066.1 | NT | Sigmodon hispidus p53 gene, partial cds |
| 3004 | 16179 | | 7.53 | 1.9E-01 | J00922.1 | NT | Gallus gallus ovalbumin (Y) gene, complete cds |
| 3482 | 16650 | 29666 | 4.07 | 1.9E-01 | D13197.1 | NT | Mouse gene for immunoglobulin diversity region D1 |
| 3569 | 16734 | 29750 | 4.94 | 1.9E-01 | R16467.1 | EST_HUMAN | yf42f10.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:129547 5' |
| 3907 | 17066 | 30065 | 1.09 | 1.9E-01 | AF264017.1 | NT | Rattus norvegicus arylacetamide deacetylase gene, complete cds |
| 4100 | 17255 | 30256 | 3.68 | 1.9E-01 | AB006784.1 | NT | Schizosaccharomyces pombe DNA for cytoplasmic dynein heavy chain, complete cds |
| 4193 | 17343 | 30336 | 1.51 | 1.9E-01 | AW754106.1 | EST_HUMAN | CM3-CT0315-271199-045-b11 CT0315 Homo sapiens cDNA |
| 4261 | 17397 | | 1.31 | 1.9E-01 | AE001912.1 | NT | Deinococcus radiodurans R1 section 49 of 229 of the complete chromosome 1 |

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## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4346 | 17489 | 30471 | 0.89 | 1.9E-01 | BE834943.1 | EST_HUMAN | MR1-FN0010-290700-007-d04 FN0010 Homo sapiens cDNA |
| 4592 | 17729 | 30711 | 0.8 | 1.9E-01 | AL161493.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 5 |
| 5124 | 18250 | | 1.08 | 1.9E-01 | AF223642.1 | NT | Rattus norvegicus chemokine receptor CXCR3 mRNA, complete cds |
| 5721 | 18914 | | 5.19 | 1.9E-01 | AW130149.1 | EST_HUMAN | xf29a07.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2619444 3' similar to gb:M73779 RETINOIC ACID RECEPTOR ALPHA-1 (HUMAN); |
| 5761 | 18953 | 32256 | 8.03 | 1.9E-01 | AF127937.1 | NT | Homo sapiens DNA polymerase epsilon catalytic subunit protein (POLE1) gene, exon 1a |
| 5962 | 19148 | 32463 | 1.08 | 1.9E-01 | AF091216.1 | NT | Mus musculus Wm protein (Wm) gene, complete cds |
| 6006 | 19191 | | 2.45 | 1.9E-01 | AU133116.1 | EST_HUMAN | AU133116 NT2RP4 Homo sapiens cDNA clone NT2RP4001328 5' |
| 6457 | 19624 | 32987 | 1.03 | 1.9E-01 | AI762391.1 | EST_HUMAN | wi64h02.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:2394099 3' |
| 6518 | 19683 | 33054 | 1.1 | 1.9E-01 | AW148452.1 | EST_HUMAN | xf14c08.x1 NCI_CGAP_Kid8 Homo sapiens cDNA clone IMAGE:2618030 3' similar to gb:X03559 ATP SYNTHASE BETA CHAIN, MITOCHONDRIAL PRECURSOR (HUMAN); |
| 7112 | 18538 | 31495 | 1.54 | 1.9E-01 | R43212.1 | EST_HUMAN | yg09a12.s1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:31663 3' similar to contains MER13 repetitive element ; |
| 7138 | 20273 | 33712 | 0.74 | 1.9E-01 | AF034920.1 | NT | Homo sapiens tubby like protein 1 (TULP1) gene, exons 9-11 |
| 7138 | 20273 | 33713 | 0.74 | 1.9E-01 | AF034920.1 | NT | Homo sapiens tubby like protein 1 (TULP1) gene, exons 9-11 |
| 7409 | 20487 | 33957 | 0.92 | 1.9E-01 | U73846.1 | NT | Drosophila melanogaster testis-specific RNA-binding protein (bruno) mRNA, complete cds |
| 7638 | 20707 | 34186 | 0.78 | 1.9E-01 | U93688.1 | NT | Staphylococcus aureus toxic shock syndrome toxin-1 (tst), enterotoxin (ent), and integrase (int) genes, complete cds |
| 7661 | 20728 | 34204 | 1.38 | 1.9E-01 | U80922.1 | NT | Arabidopsis thaliana serine/threonine protein phosphatase type one (TOPP8) gene, complete cds |
| 7708 | 20773 | 34258 | 2.64 | 1.9E-01 | AF072724.1 | NT | Zea mays starch branching enzyme I (sbe1) gene, complete.cds |
| 8174 | 21256 | 34778 | 1.83 | 1.9E-01 | AL161557.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 57 |
| 8885 | 21984 | 35500 | 13.56 | 1.9E-01 | AB033024.1 | NT | Homo sapiens mRNA for KIAA1198 protein, partial cds |
| 9146 | 22225 | 35768 | 1.5 | 1.9E-01 | M14568.1 | NT | Marsupial cat beta-globin gene mRNA, partial cds |
| 9146 | 22225 | 35769 | 1.5 | 1.9E-01 | M14568.1 | NT | Marsupial cat beta-globin gene mRNA, partial cds |
| 10079 | 23117 | 36719 | 0.77 | 1.9E-01 | AA912486.1 | EST_HUMAN | ol96g10.s1 NCI_CGAP_PNS1 Homo sapiens cDNA clone IMAGE:1537506 3' similar to contains Alu repetitive element; |
| 10447 | 23482 | 37090 | 0.81 | 1.9E-01 | BE830353.1 | EST_HUMAN | RC5-ET0082-060700-022-A02 ET0082 Homo sapiens cDNA |
| 10447 | 23482 | 37091 | 0.81 | 1.9E-01 | BE830353.1 | EST_HUMAN | RC5-ET0082-060700-022-A02 ET0082 Homo sapiens cDNA |
| 10880 | 23965 | 37593 | 1.38 | 1.9E-01 | AL161503.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 15 |
| 10880 | 23965 | 37594 | 1.38 | 1.9E-01 | AL161503.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 15 |
| 10992 | 24071 | 37704 | 2.18 | 1.9E-01 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 12025 | 25009 | 38711 | 2.21 | 1.9E-01 | AJ243213.1 | NT | Homo sapiens partial 5-HT4 receptor gene, exons 2 to 5 |
| 12047 | 25028 | 38735 | 1.48 | 1.9E-01 | L07344.1 | NT | Influenza A/Guangdong/243/72 nucleoprotein (seg 5) gene, 5' end |

Table 4

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 32 | 13270 | 26274 | 1.85 | 1.8E-01 | U73200.1 | NT | Mus musculus p116Rip mRNA, complete cds |
| 270 | 16009 | 26519 | 1.47 | 1.8E-01 | AB022090.1 | NT | Mus musculus Cctg gene for chaperonin containing TCP-1 gamma subunit, partial cds |
| 381 | 13589 | 26625 | 1.9 | 1.8E-01 | 4502532 | NT | Homo sapiens calcium channel, voltage-dependent, beta 2 subunit (CACNB2) mRNA, and translated products |
| 765 | 13946 | 26993 | 0.78 | 1.8E-01 | AB021490.2 | NT | Oryzias latipes gene for membrane guanylyl cyclase OlGC1, complete cds |
| 1005 | 14176 | 27235 | 1.8 | 1.8E-01 | AI912212.1 | EST_HUMAN | wd71f02.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2337051 3' |
| 1115 | 14279 | 27335 | 2.14 | 1.8E-01 | AF000580.1 | NT | Dictyostelium discoideum plasmid Ddp5, complete genome |
| 1317 | 14473 | 27540 | 6.87 | 1.8E-01 | AL117189.1 | NT | Yersinia pestis plasmid pCD1 |
| 1533 | 14686 | 27765 | 1.49 | 1.8E-01 | 6753947 | NT | Mus musculus guanylate nucleotide binding protein 1 (Gbp1), mRNA |
| 1533 | 14686 | 27766 | 1.49 | 1.8E-01 | 6753947 | NT | Mus musculus guanylate nucleotide binding protein 1 (Gbp1), mRNA |
| 1915 | 15058 |  | 1.91 | 1.8E-01 | AI733708.1 | EST_HUMAN | qg22d10.x5 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1761811 3' similar to TR:O75936 O75936 GAMMA BUTYROBETAINE HYDROXYLASE ; |
| 1965 | 15108 | 28208 | 2.28 | 1.8E-01 | AB051897.1 | NT | Mus musculus Scya6, Scya9, Scya16-ps, Scya5 genes for small inducible cytokine A6 precursor, small inducible cytokine A9 precursor, Scya16 pseudogene, small inducible cytokine A5 precursor, complete cds |
| 2756 | 15873 |  | 3.34 | 1.8E-01 | AW935728.1 | EST_HUMAN | QV3-DT0018-081299-036-g04 DT0018 Homo sapiens cDNA |
| 2963 | 16140 |  | 2.3 | 1.8E-01 | AF184589.1 | NT | Jonopsidium acaule LEAFY protein (LEAFY2) gene, partial cds |
| 2968 | 16144 | 29163 | 1.16 | 1.8E-01 | AW182300.1 | EST_HUMAN | xj41a03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2659756 3' |
| 3194 | 16369 | 29375 | 1.61 | 1.8E-01 | AW995178.1 | EST_HUMAN | QV0-BN0041-070300-147-c04 BN0041 Homo sapiens cDNA |
| 3452 | 16619 | 29638 | 0.77 | 1.8E-01 | BF183582.1 | EST_HUMAN | 601809723R1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:4040621 3' |
| 3712 | 16873 | 29877 | 0.87 | 1.8E-01 | H03369.1 | EST_HUMAN | yj45e01.s1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:151704 3' similar to contains Alu repetitive element; |
| 3712 | 16873 | 29878 | 0.87 | 1.8E-01 | H03369.1 | EST_HUMAN | yj45e01.s1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:151704 3' similar to contains Alu repetitive element; |
| 4453 | 17593 |  | 0.92 | 1.8E-01 | D37954.1 | NT | Bovine NB25 mRNA for MHC class II (BoLA-DQB), complete cds |
| 4678 | 17813 | 30801 | 5.61 | 1.8E-01 | AL161556.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 56 |
| 4895 | 18025 | 31011 | 2.68 | 1.8E-01 | AB051897.1 | NT | Mus musculus Scya6, Scya9, Scya16-ps, Scya5 genes for small inducible cytokine A6 precursor, small inducible cytokine A9 precursor, Scya16 pseudogene, small inducible cytokine A5 precursor, complete cds |
| 5129 | 18254 | 31219 | 0.65 | 1.8E-01 | X79794.1 | NT | N.tabacum mRNA pNLA-35 |
| 5158 | 18280 | 31245 | 1.79 | 1.8E-01 | AW814270.1 | EST_HUMAN | MR3-ST0203-151299-112-g06 ST0203 Homo sapiens cDNA |
| 5206 | 18327 | 31297 | 2.55 | 1.8E-01 | AF181258.1 | NT | Mesocricetus auratus Na-taurocholate cotransporting polypeptide mRNA, partial cds |
| 5218 | 18340 | 31313 | 0.89 | 1.8E-01 | AI439881.1 | EST_HUMAN | ti57e04.x1 NCI_CGAP_Lym12 Homo sapiens cDNA clone IMAGE:2134590 3' |
| 5291 | 18409 | 31376 | 1.2 | 1.8E-01 | Y08310.1 | NT | M.barkeri mtaC and mtaB genes |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit.Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5413 | 18615 | 31589 | 0.61 | 1.8E-01 | BE082626.1 | EST_HUMAN | RC6-BT0641-300300-011-H03 BT0641 Homo sapiens cDNA |
| 5929 | 19115 | 32428 | 1.19 | 1.8E-01 | AL161594.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 90 |
| 6047 | 19230 | 32554 | 0.95 | 1.8E-01 | N28629.1 | EST_HUMAN | yx38h08.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:264063 5' |
| 6256 | 19430 | 32776 | 0.89 | 1.8E-01 | 6678428 | NT | Mus musculus Tnf receptor-associated factor 6 (Traf6), mRNA |
| 6256 | 19430 | 32777 | 0.89 | 1.8E-01 | 6678428 | NT | Mus musculus Tnf receptor-associated factor 6 (Traf6), mRNA |
| 6641 | 19800 | 33189 | 1.16 | 1.8E-01 | Q9QY14 | SWISSPROT | FORKHEAD BOX PROTEIN E3 |
| 6688 | 19846 | | 2.12 | 1.8E-01 | N94853.1 | EST_HUMAN | yy62h02.r1 Soares_multiple_sclerosis_2NbHMSP Homo sapiens cDNA clone IMAGE:278163 5' |
| 7146 | 20281 | 33722 | 1.11 | 1.8E-01 | AB018561.1 | NT | Citrullus lanatus mRNA for wsus, complete cds |
| 7146 | 20281 | 33723 | 1.11 | 1.8E-01 | AB018561.1 | NT | Citrullus lanatus mRNA for wsus, complete cds |
| 7202 | 20067 | 33477 | 0.67 | 1.8E-01 | BE961353.1 | EST_HUMAN | 601648361R2 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:3932247 3' |
| 7604 | 20674 | 34148 | 0.81 | 1.8E-01 | AP001511.1 | NT | Bacillus halodurans genomic DNA, section 5/14 |
| 8810 | 21889 | 35431 | 0.58 | 1.8E-01 | AW966118.1 | EST_HUMAN | EST378191 MAGE resequences, MAGI Homo sapiens cDNA |
| 9543 | 22608 | 36176 | 1.58 | 1.8E-01 | M73258.1 | NT | Human cellular DNA/Human papillomavirus proviral DNA |
| 9574 | 22716 | 36284 | 1.52 | 1.8E-01 | 9626232 | NT | Bacteriophage Ike, complete genome |
| 9692 | 22741 | | 0.6 | 1.8E-01 | AA493751.1 | EST_HUMAN | nh02a05.s1 NCI_CGAP_Thy1 Homo sapiens cDNA clone IMAGE:943088 similar to contains L1.t3 L1 repetitive element ; |
| 9774 | 22814 | 36392 | 0.95 | 1.8E-01 | P15272 | SWISSPROT | AMP NUCLEOSIDASE |
| 9774 | 22814 | 36393 | 0.95 | 1.8E-01 | P15272 | SWISSPROT | AMP NUCLEOSIDASE |
| 9814 | 22854 | 36432 | 1.02 | 1.8E-01 | M26019.1 | NT | S.commune orotidine-5'-phosphate decarboxylase (URA1) gene, complete cds |
| 9814 | 22854 | 36433 | 1.02 | 1.8E-01 | M26019.1 | NT | S.commune orotidine-5'-phosphate decarboxylase (URA1) gene, complete cds |
| 9981 | 23020 | 36613 | 0.81 | 1.8E-01 | P08123 | SWISSPROT | COLLAGEN ALPHA 2(I) CHAIN PRECURSOR |
| 9986 | 23025 | 36617 | 0.71 | 1.8E-01 | U67548.1 | NT | Methanococcus jannaschii section 90 of 150 of the complete genome |
| 10337 | 23372 | | 0.67 | 1.8E-01 | AF200252.1 | NT | Aquarius amplus cytochrome oxidase subunit I (COI) gene, partial cds; mitochondrial gene for mitochondrial product |
| 10578 | 23613 | 37218 | 1.46 | 1.8E-01 | X63440.1 | NT | M.musculus mRNA for P19-protein tyrosine phosphatase |
| 10785 | 23818 | 37441 | 1.21 | 1.8E-01 | AB011171.1 | NT | Homo sapiens mRNA for KIAA0599 protein, partial cds |
| 10873 | 23958 | 37588 | 2.02 | 1.8E-01 | X77336.1 | NT | A.thaliana mRNA for ribonucleotide reductase R2 |
| 10917 | 24000 | 37633 | 5 | 1.8E-01 | U38906.1 | NT | Bacteriophage r1t integrase, repressor protein (rro), dUTPase, holin and lysin genes, complete cds |
| 10974 | 20281 | 33722 | 3.05 | 1.8E-01 | AB018561.1 | NT | Citrullus lanatus mRNA for wsus, complete cds |
| 10974 | 20281 | 33723 | 3.06 | 1.8E-01 | AB018561.1 | NT | Citrullus lanatus mRNA for wsus, complete cds |
| 10975 | 24054 | 37688 | 4.41 | 1.8E-01 | AF019107.1 | NT | Dictyostelium discoideum unknown (DG1041) gene, complete cds |
| 11270 | 24338 | 37976 | 2.06 | 1.8E-01 | M59257.1 | NT | Human carcinoembryonic antigen (CEA) gene, exon 4 |
| 11551 | 24606 | 38284 | 1.41 | 1.8E-01 | AW275728.1 | EST_HUMAN | xp40h10.x1 NCI_CGAP_HN11 Homo sapiens cDNA clone IMAGE:2742883 3' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11750 | 23936 | 37563 | 8.94 | 1.8E-01 | X57033.1 | NT | B.taurus mRNA for potassium channel |
| 12061 | 25042 | 38751 | 3.48 | 1.8E-01 | 8394421 | NT | Rattus norvegicus Thromboxane receptor (Tbxa2r), mRNA |
| 12124 | 25104 | 38808 | 1.77 | 1.8E-01 | AA095094.1 | EST_HUMAN | cp2798.seq.F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA 5' |
| 12239 | 25183 | | 1.79 | 1.8E-01 | 10086561 | NT | Bovine ephemeral fever virus, complete genome |
| 12306 | 25224 | 32103 | 1.26 | 1.8E-01 | BF348623.1 | EST_HUMAN | 602019928F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4155318 5' |
| 12719 | 14473 | 27540 | 1.18 | 1.8E-01 | AL117189.1 | NT | Yersinia pestis plasmid pCD1 |
| 12811 | 25541 | | 3.28 | 1.8E-01 | Q96682 | SWISSPROT | DNA TERMINAL PROTEIN (BELLETT PROTEIN) (PTP PROTEIN) |
| 12942 | 25620 | | 20.8 | 1.8E-01 | R24494.1 | EST_HUMAN | yh48h10.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:133027 5' |
| 12988 | 25643 | | 4.98 | 1.8E-01 | Y11114.1 | NT | E.dispar mRNA for hexokinase (hxk1) |
| 13035 | 26134 | 31548 | 1.7 | 1.8E-01 | 9506952 | NT | Rattus norvegicus procollagen C-proteinase enhancer protein (Pcolce), mRNA |
| 591 | 13762 | 26801 | 6.4 | 1.7E-01 | BE385164.1 | EST_HUMAN | 601274604F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3615768 5' |
| 828 | 14006 | 27063 | 3.16 | 1.7E-01 | X53330.1 | NT | P.dumerilii histone gene cluster for core histones H2A, H2B, H3 and H4 |
| 983 | 14156 | | 1.79 | 1.7E-01 | P35616 | SWISSPROT | NEUROFILAMENT TRIPLET L PROTEIN (NEUROFILAMENT LIGHT POLYPEPTIDE) (NF-L) |
| 1083 | 14249 | 27305 | 0.89 | 1.7E-01 | AF081810.1 | NT | Lymantria dispar nucleopolyhedrovirus, complete genome |
| 1083 | 14249 | 27306 | 0.89 | 1.7E-01 | AF081810.1 | NT | Lymantria dispar nucleopolyhedrovirus, complete genome |
| 1860 | 15006 | 28113 | 2.44 | 1.7E-01 | AL161573.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 69 |
| 2038 | 15179 | | 3.23 | 1.7E-01 | AF255051.1 | NT | Homo sapiens BNIP3H (BNIP3H) gene, complete cds; nuclear gene for mitochondrial product |
| 2922 | 16100 | 29112 | 2.13 | 1.7E-01 | AF000716.1 | NT | Vibrio cholerae hypoxanthine phosphoribosyltransferase (hpt) gene, partial cds, hemagglutinin/protease regulatory protein (hapR) gene, complete cds, and YRAL VIBCO gene, partial cds |
| 2922 | 16100 | 29113 | 2.13 | 1.7E-01 | AF000716.1 | NT | Vibrio cholerae hypoxanthine phosphoribosyltransferase (hpt) gene, partial cds, hemagglutinin/protease regulatory protein (hapR) gene, complete cds, and YRAL VIBCO gene, partial cds |
| 2993 | 16169 | 29186 | 1.47 | 1.7E-01 | AA336909.1 | EST_HUMAN | EST41651 Endometrial tumor Homo sapiens cDNA 5' end |
| 3061 | 16237 | 29257 | 1.09 | 1.7E-01 | AJ238736.1 | NT | Naja naja atra ctx-1 gene, exons 1-3 |
| 3061 | 16237 | 29258 | 1.09 | 1.7E-01 | AJ238736.1 | NT | Naja naja atra ctx-1 gene, exons 1-3 |
| 3174 | 16349 | 29355 | 1.65 | 1.7E-01 | AF081514.1 | NT | Taxus canadensis geranylgeranyl diphosphate synthase mRNA, complete cds |
| 3451 | 16618 | 29637 | 0.81 | 1.7E-01 | N55763.1 | EST_HUMAN | J2346F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone J2346 5' |
| 3534 | 16699 | 29710 | 1.52 | 1.7E-01 | AJ269505.1 | NT | Anabaena sp. ORF4 (partial), ORF3, ORF2, ORF1, adpA gene, adpB gene, adpC gene, adpD gene, adpE gene and adpF gene |
| 4049 | 17205 | 30215 | 6.06 | 1.7E-01 | AJ235377.1 | NT | Homo sapiens derivative 11 breakpoint fragment: partial intron 10 of the ALL-1/MLL/HRX gene fused to intron 5 of the AF-4/FEL gene |
| 4681 | 17816 | | 2.49 | 1.7E-01 | X52936.1 | NT | Schistocerca gregaria alpha repetitive DNA |
| 4884 | 18014 | 30998 | 0.59 | 1.7E-01 | AF217490.1 | NT | Homo sapiens fragile 16D oxido reductase (FOR) gene, exons 8, 9, and partial cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4961 | 18090 | 31066 | 1.31 | 1.7E-01 | AI247635.1 | EST_HUMAN | qh57e09.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1848808 3' similar to contains OFR.b1 OFR repetitive element ; |
| 5231 | 18353 | | 1.07 | 1.7E-01 | AF072725.1 | NT | Zea mays starch branching enzyme IIb (ae) gene, complete cds |
| 5272 | 18391 | 31359 | 0.72 | 1.7E-01 | BF030010.1 | EST_HUMAN | 601557256F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827197 5' |
| 5312 | 18429 | 31399 | 0.91 | 1.7E-01 | D37951.1 | NT | Rattus norvegicus mRNA for MIBP1 (c-myc intron binding protein 1), complete cds |
| 5524 | 18721 | 31737 | 1.88 | 1.7E-01 | AA470686.1 | EST_HUMAN | ne13a02.s1 NCI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:881066 3' similar to gb:M17886 60S ACIDIC RIBOSOMAL PROTEIN P1 (HUMAN); |
| 5524 | 18721 | 31738 | 1.88 | 1.7E-01 | AA470686.1 | EST_HUMAN | ne13a02.s1 NCI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:881066 3' similar to gb:M17886 60S ACIDIC RIBOSOMAL PROTEIN P1 (HUMAN); |
| 5710 | 18903 | 32198 | 0.92 | 1.7E-01 | U43599.1 | NT | Brugia pahangi microfilarial sheath protein SHP3 (shp3) gene, complete cds |
| 6459 | 19626 | 32988 | 12.64 | 1.7E-01 | H72118.1 | EST_HUMAN | ys02g06.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:213658 3' |
| 6517 | 19682 | 33052 | 0.72 | 1.7E-01 | AI370976.1 | EST_HUMAN | ta29c11.x1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:2045492 3' |
| 6517 | 19682 | 33053 | 0.72 | 1.7E-01 | AI370976.1 | EST_HUMAN | ta29c11.x1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:2045492 3' |
| 6992 | 18511 | 31503 | 0.75 | 1.7E-01 | BE300286.1 | EST_HUMAN | 600944067T1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2960248 3' |
| 7019 | 20155 | | 1.94 | 1.7E-01 | AF026552.3 | NT | Mesocricetus auratus oviductin precursor (OVI) gene, complete cds |
| 7140 | 20275 | | 0.59 | 1.7E-01 | Z92910.1 | NT | Homo sapiens HFE gene |
| 7369 | 20448 | 33911 | 1.38 | 1.7E-01 | AP000422.1 | NT | Escherichia coli O157:H7 genomic DNA, Sakai-VT2 prophage inserted region |
| 7448 | 20525 | 33998 | 8.61 | 1.7E-01 | BE734179.1 | EST_HUMAN | 601569022F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3843964 5' |
| 7649 | 20718 | 34195 | 1.21 | 1.7E-01 | P16724 | SWISSPROT | PROBABLE PROCESSING AND TRANSPORT PROTEIN UL56 (HFLF0 PROTEIN) |
| 7666 | 25850 | 34208 | 0.64 | 1.7E-01 | Q01955 | SWISSPROT | COLLAGEN ALPHA 3(IV) CHAIN PRECURSOR |
| 8045 | 21128 | 34648 | 1.26 | 1.7E-01 | AF000573.1 | NT | Homo sapiens homogentisate 1,2-dioxygenase gene, complete cds |
| 8150 | 21232 | 34752 | 0.75 | 1.7E-01 | AF150669.1 | NT | Pseudomonas putida long-chain-fatty-acid-CoA ligase (fadD) gene, complete cds |
| 8472 | 21553 | 35083 | 7.35 | 1.7E-01 | 7706426 | NT | Homo sapiens cleavage and polyadenylation specificity factor 3, 73kD subunit (CPSF3), mRNA |
| 8472 | 21653 | 35084 | 7.35 | 1.7E-01 | 7706426 | NT | Homo sapiens cleavage and polyadenylation specificity factor 3, 73kD subunit (CPSF3), mRNA |
| 8895 | 21974 | 35511 | 0.5 | 1.7E-01 | AW992873.1 | EST_HUMAN | RC2-BN0032-120200-011-a10 BN0032 Homo sapiens cDNA |
| 8925 | 22004 | 35543 | 1.93 | 1.7E-01 | D00384.1 | NT | Rat (SHR strain) SX1 gene |
| 9045 | 22124 | 35666 | 0.94 | 1.7E-01 | AF217413.1 | NT | Homo sapiens neuroligin 3 isoform gene, complete cds, alternatively spliced |
| 9045 | 22124 | 35667 | 0.94 | 1.7E-01 | AF217413.1 | NT | Homo sapiens neuroligin 3 isoform gene, complete cds, alternatively spliced |
| 9198 | 22276 | 35814 | 0.51 | 1.7E-01 | R77002.1 | EST_HUMAN | yi66g02.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:144242 5' |
| 9369 | 22444 | 36005 | 0.53 | 1.7E-01 | BE253142.1 | EST_HUMAN | 601116672F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3357184 5' |
| 9369 | 22444 | 36006 | 0.53 | 1.7E-01 | BE253142.1 | EST_HUMAN | 601116672F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3357184 5' |
| 9789 | 22829 | 36407 | 9.03 | 1.7E-01 | AP001508.1 | NT | Bacillus halodurans genomic DNA, section 2/14 |
| 9899 | 22939 | 36524 | 0.54 | 1.7E-01 | AW977455.1 | EST_HUMAN | EST389564 MAGE resequences, MAGO Homo sapiens cDNA |
| 9899 | 22939 | 36525 | 0.54 | 1.7E-01 | AW977455.1 | EST_HUMAN | EST389564 MAGE resequences, MAGO Homo sapiens cDNA |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9916 | 22956 | 36543 | 2.08 | 1.7E-01 | U16288.1 | NT | Human class IV alcohol dehydrogenase (ADH7) gene, exon 3 |
| 9992 | 23031 | 36621 | 0.47 | 1.7E-01 | Z34508.1 | NT | Human immunodeficiency virus type 1 (B7.05) env gene (partial) |
| 9992 | 23031 | 36622 | 0.47 | 1.7E-01 | Z34508.1 | NT | Human immunodeficiency virus type 1 (B7.05) env gene (partial) |
| 10013 | 23051 | 36645 | 0.93 | 1.7E-01 | AJ251749.1 | NT | Drosophila melanogaster mRNA for serine protease inhibitor (serpin-6), (sp6 gene) |
| 10438 | 23473 |  | 2.77 | 1.7E-01 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 10605 | 23639 | 37247 | 1.56 | 1.7E-01 | 11427203 | NT | Homo sapiens solute carrier family 7 (cationic amino acid transporter, y+ system), member 2 (SLC7A2), mRNA |
| 10607 | 23641 | 37249 | 1.66 | 1.7E-01 | AA627972.1 | EST_HUMAN | nq60e07.s1 NCI_CGAP_Co9 Homo sapiens cDNA clone IMAGE:1148292 3' similar to gb:L25081 TRANSFORMING PROTEIN RHOC (HUMAN); |
| 10919 | 24002 | 37636 | 9.54 | 1.7E-01 | BE390835.1 | EST_HUMAN | 601286547F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3613258 5' |
| 11045 | 24122 | 37756 | 2.12 | 1.7E-01 | AA814617.1 | EST_HUMAN | of43a03.s1 NCI_CGAP_CNS1 Homo sapiens cDNA clone IMAGE:1426924 3' |
| 11373 | 24434 | 38090 | 6.81 | 1.7E-01 | 7106300 | NT | Mus musculus adenomatosis polyposis coli binding protein Eb1 (Eb1), mRNA |
| 11373 | 24434 | 38091 | 6.81 | 1.7E-01 | 7106300 | NT | Mus musculus adenomatosis polyposis coli binding protein Eb1 (Eb1), mRNA |
| 11657 | 24736 | 38427 | 1.71 | 1.7E-01 | AA883375.1 | EST_HUMAN | al45f09.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1460297 3' |
| 12011 | 24996 |  | 1.5 | 1.7E-01 | P15272 | SWISSPROT | AMP NUCLEOSIDASE |
| 12042 | 25023 | 38727 | 1.67 | 1.7E-01 | P55899 | SWISSPROT | IGG RECEPTOR FCRN LARGE SUBUNIT P51 PRECURSOR (FCRN) (NEONATAL FC RECEPTOR) (IGG FC FRAGMENT RECEPTOR TRANSPORTER, ALPHA CHAIN) |
| 12042 | 25023 | 38728 | 1.67 | 1.7E-01 | P55899 | SWISSPROT | IGG RECEPTOR FCRN LARGE SUBUNIT P51 PRECURSOR (FCRN) (NEONATAL FC RECEPTOR) (IGG FC FRAGMENT RECEPTOR TRANSPORTER, ALPHA CHAIN) |
| 12142 | 25117 | 38825 | 2 | 1.7E-01 | 11418157 | NT | Homo sapiens calcium channel, voltage-dependent, alpha 1I subunit (CACNA1I), mRNA |
| 12275 | 26087 |  | 1.45 | 1.7E-01 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 12567 | 25920 |  | 1.18 | 1.7E-01 | AI824404.1 | EST_HUMAN | tx69g05.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2274872 3' similar to gb:M73779 RETINOIC ACID RECEPTOR ALPHA-1 (HUMAN); |
| 12907 | 25600 | 31972 | 7.24 | 1.7E-01 | U01317.1 | NT | Human beta globin region on chromosome 11 |
| 128 | 13356 | 26388 | 1.7 | 1.6E-01 | AF217532.1 | NT | Homo sapiens mevalonate kinase gene, exon 6 and 7 |
| 697 | 15985 | 26913 | 1.16 | 1.6E-01 | R31497.1 | EST_HUMAN | yh75f12.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:135599 5' |
| 1561 | 14703 | 27783 | 4.25 | 1.6E-01 | AF298117.1 | NT | Homo sapiens homeobox protein OTX2 gene, complete cds |
| 1910 | 15053 |  | 1.27 | 1.6E-01 | AJ235272.1 | NT | Rickettsia prowazekii strain Madrid E, complete genome; segment 3/4 |
| 1977 | 15120 | 28221 | 2.14 | 1.6E-01 | P22063 | SWISSPROT | AXONIN-1 PRECURSOR (AXONAL GLYCOPROTEIN TAG-1) |
| 2041 | 15182 |  | 1.43 | 1.6E-01 | U10334.1 | NT | Crassostrea gigas RNA polymerase II largest subunit mRNA, partial cds |
| 2457 | 16063 | 28712 | 1.09 | 1.6E-01 | X94232.1 | NT | H.sapiens mRNA for novel T-cell activation protein |
| 2562 | 15687 | 28813 | 2.73 | 1.6E-01 | AB037729.1 | NT | Homo sapiens mRNA for KIAA1308 protein, partial cds |
| 2957 | 16134 | 29149 | 14.1 | 1.6E-01 | AF185589.1 | NT | Homo sapiens cytochrome P450 3A4 (CYP3A4) gene, promoter region |
| 2957 | 16134 | 29150 | 14.1 | 1.6E-01 | AF185589.1 | NT | Homo sapiens cytochrome P450 3A4 (CYP3A4) gene, promoter region |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3723 | 16884 | 29889 | 1.23 | 1.6E-01 | AJ003165.1 | NT | Populus trichocarpa cv. Trichobel ABI3 gene |
| 3723 | 16884 | 29890 | 1.23 | 1.6E-01 | AJ003165.1 | NT | Populus trichocarpa cv. Trichobel ABI3 gene |
| 3872 | 17031 | 30030 | 0.82 | 1.6E-01 | AE000962.1 | NT | Archaeoglobus fulgidus section 145 of 172 of the complete genome |
| 4107 | 17261 | | 2.8 | 1.6E-01 | AE004413.1 | NT | Vibrio cholerae chromosome II, section 70 of 93 of the complete chromosome |
| 4144 | 17296 | 30288 | 1.21 | 1.6E-01 | AF084456.1 | NT | Crithidia fasciculata tryparedoxin I (txnl) gene, complete cds |
| 4448 | 17588 | 30569 | 10.91 | 1.6E-01 | AF179680.1 | NT | Homo sapiens apelin gene, complete cds |
| 4578 | 17715 | | 2.49 | 1.6E-01 | AW968601.1 | EST_HUMAN | EST380677 MAGE resequences, MAGJ Homo sapiens cDNA |
| 4586 | 17723 | | 4.39 | 1.6E-01 | 6753319 | NT | Mus musculus chaperonin subunit 3 (gamma) (Cct3), mRNA |
| 5060 | 18188 | 31162 | 1.39 | 1.6E-01 | AA088343.1 | EST_HUMAN | zl84h09.s1 Stratagene colon (#937204) Homo sapiens cDNA clone IMAGE:511361 3' similar to TR:E221955 E221955 38,855 BP SEGMENT OF CHROMOSOME XIV. ; |
| 5083 | 18211 | 31183 | 1.8 | 1.6E-01 | AJ006356.1 | NT | Lycopersicon esculentum RsaI fragment 2, satellite region |
| 5083 | 18211 | 31184 | 1.8 | 1.6E-01 | AJ006356.1 | NT | Lycopersicon esculentum RsaI fragment 2, satellite region |
| 5345 | 18458 | | 0.93 | 1.6E-01 | AF045283.1 | NT | Gallus gallus smooth muscle/non-muscle myosin light chain kinase gene, exon 29 |
| 5503 | 18702 | 31719 | 0.81 | 1.6E-01 | L40608.1 | NT | Plasmodium falciparum (strain Dd2) variant-specific surface protein (var-1) gene, complete cds |
| 5639 | 18833 | 31909 | 2.9 | 1.6E-01 | AW197496.1 | EST_HUMAN | xm43f01.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2686969 3' similar to TR:O75984 O75984 HYPOTHETICAL 127.6 KD PROTEIN ; |
| 5639 | 18833 | 31910 | 2.9 | 1.6E-01 | AW197496.1 | EST_HUMAN | xm43f01.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2686969 3' similar to TR:O75984 O75984 HYPOTHETICAL 127.6 KD PROTEIN ; |
| 5651 | 18845 | 32126 | 1.99 | 1.6E-01 | AF034716.1 | NT | Rattus norvegicus CCAAT/enhancer binding protein epsilon (cebpe) gene, complete cds |
| 6152 | 19328 | 32674 | 0.73 | 1.6E-01 | BE925803.1 | EST_HUMAN | RC3-BN0034-310800-113-h01 BN0034 Homo sapiens cDNA |
| 6558 | 19720 | 33096 | 2.06 | 1.6E-01 | AL161588.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 84 |
| 6558 | 19720 | 33097 | 2.06 | 1.6E-01 | AL161588.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 84 |
| 6939 | 20252 | 33688 | 0.79 | 1.6E-01 | AB046786.1 | NT | Homo sapiens mRNA for KIAA1566 protein, partial cds |
| 6985 | 20213 | | 0.66 | 1.6E-01 | BF683630.1 | EST_HUMAN | 602139855F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4301004 5' |
| 7103 | 18530 | 31485 | 4.15 | 1.6E-01 | AW291215.1 | EST_HUMAN | UI-H-BI2-agi-b-06-0-UI.s1 NCI_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2724418 3' |
| 7461 | 20628 | 34001 | 0.71 | 1.6E-01 | Z49632.1 | NT | S.cerevisiae chromosome X reading frame ORF YJR132w |
| 7955 | 21005 | 34516 | 1.63 | 1.6E-01 | AW246359.1 | EST_HUMAN | 2822248.5prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2822248 5' |
| 7982 | 21031 | 34544 | 0.84 | 1.6E-01 | 6753237 | NT | Mus musculus Ca<2+>dependent activator protein for secretion (Cadps), mRNA |
| 7986 | 21035 | | 1.03 | 1.6E-01 | AU136525.1 | EST_HUMAN | AU136525 PLACE1 Homo sapiens cDNA clone PLACE1004466 5' |
| 8053 | 21136 | 34657 | 1.62 | 1.6E-01 | L49349.1 | NT | Gorilla gorilla androgen receptor gene, partial exon |
| 8215 | 21297 | | 0.53 | 1.6E-01 | BE244087.1 | EST_HUMAN | TCBAP1E0607 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP0607 |
| 8310 | 21392 | 34916 | 0.77 | 1.6E-01 | U38243.1 | NT | Bacteroides vulgatus beta-lactamase (cfxA) gene, complete cds and mobilization protein (mobA) gene, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8833 | 21912 | 35450 | 1.08 | 1.6E-01 | Z99119.1 | NT | Bacillus subtilis complete genome (section 16 of 21): from 2997771 to 3213410 |
| 9026 | 22105 | 35646 | 0.77 | 1.6E-01 | R13673.1 | EST_HUMAN | yf60h08.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:26873 5' |
| 9133 | 22212 |  | 0.74 | 1.6E-01 | L36861.1 | NT | Homo sapiens guanylate cyclase activating protein (GCAP) gene exons 1-4, complete cds |
| 9171 | 22249 | 35792 | 1.85 | 1.6E-01 | Z49501.1 | NT | S.cerevisiae chromosome X reading frame ORF YJR001w |
| 9311 | 22387 |  | 0.76 | 1.6E-01 | AF111167.2 | NT | Homo sapiens jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene |
| 9851 | 22891 |  | 1.77 | 1.6E-01 | BF375171.1 | EST_HUMAN | RC3-ST0200-041199-011-h01 ST0200 Homo sapiens cDNA |
| 9854 | 22894 | 36475 | 1.99 | 1.6E-01 | Z49501.1 | NT | S.cerevisiae chromosome X reading frame ORF YJR001w |
| 9891 | 22931 |  | 1.16 | 1.6E-01 | BE155664.1 | EST_HUMAN | PM2-HT0353-270100-004-f11 HT0353 Homo sapiens cDNA |
| 10826 | 23859 | 37482 | 0.5 | 1.6E-01 | 11128016 | NT | Homo sapiens nuclear autoantigen (GS2NA), mRNA |
| 10893 | 23977 | 37609 | 2.34 | 1.6E-01 | AW850853.1 | EST_HUMAN | IL3-CT0220-111199-028-G01 CT0220 Homo sapiens cDNA |
| 11244 | 24313 | 37951 | 1.34 | 1.6E-01 | O14647 | SWISSPROT | CHROMODOMAIN-HELICASE-DNA-BINDING PROTEIN 2 (CHD-2) |
| 11244 | 24313 | 37952 | 1.34 | 1.6E-01 | O14647 | SWISSPROT | CHROMODOMAIN-HELICASE-DNA-BINDING PROTEIN 2 (CHD-2) |
| 11249 | 24318 | 37958 | 1.62 | 1.6E-01 | BE259649.1 | EST_HUMAN | 601145793F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3161183 5' |
| 11377 | 24438 |  | 3.6 | 1.6E-01 | AF106064.1 | NT | Plasmodium falciparum calcium-dependent protein kinase-3 (cdpk3) gene, complete cds |
| 11697 | 24694 | 38386 | 7.53 | 1.6E-01 | 6671552 | NT | Mus musculus adaptor-related protein complex AP-1, beta 1 subunit (Ap1b1), mRNA |
| 12277 | 25207 | 38363 | 3.89 | 1.6E-01 | AV719585.1 | EST_HUMAN | AV719585 GLC Homo sapiens cDNA clone GLCEMF07 5' |
| 12597 | 25402 | 32043 | 2 | 1.6E-01 | L14933.1 | NT | Rat convertase PC5 mRNA, 5' end |
| 12630 | 25423 |  | 1.38 | 1.6E-01 | AW839711.1 | EST_HUMAN | RC1-LT0074-120200-014-h01_1 LT0074 Homo sapiens cDNA |
| 12733 | 25893 |  | 11.64 | 1.6E-01 | AB045310.1 | NT | Cucumis sativus KS mRNA for ent-kaurene synthase, complete cds |
| 12933 | 25615 |  | 2.71 | 1.6E-01 | AK024496.1 | NT | Homo sapiens mRNA for FLJ00104 protein, partial cds |
| 13029 | 25678 |  | 5.04 | 1.6E-01 | AF287344.1 | NT | Fuchsia hybrid cultivar Qiu 94208 ribosomal protein S10 gene, partial cds; nuclear gene for mitochondrial product |
| 13054 | 25690 | 31964 | 1.69 | 1.6E-01 | 9506522 | NT | Rattus norvegicus chondroitin sulfate proteoglycan 5 (neuroglycan C) (Cspg5), mRNA |
| 13060 | 25694 |  | 1.4 | 1.6E-01 | BE267894.1 | EST_HUMAN | 601125459F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3345038 5' |
| 13199 | 25782 |  | 1.29 | 1.6E-01 | BF672698.1 | EST_HUMAN | 602152004F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4293145 5' |
| 258 | 13477 | 26508 | 1.7 | 1.5E-01 | BE710087.1 | EST_HUMAN | IL3-HT0619-040700-197-E05 HT0619 Homo sapiens cDNA |
| 258 | 13477 | 26509 | 1.7 | 1.5E-01 | BE710087.1 | EST_HUMAN | IL3-HT0619-040700-197-E05 HT0619 Homo sapiens cDNA |
| 600 | 15984 |  | 2.5 | 1.5E-01 | AV711696.1 | EST_HUMAN | AV711696 DCA Homo sapiens cDNA clone DCAADH06 5' |
| 805 | 13985 | 27037 | 1.38 | 1.5E-01 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 1116 | 14281 | 27337 | 1.44 | 1.5E-01 | AJ009735.1 | NT | Cyprinus carpio mRNA for EGGS22 myosin heavy chain, 3'UTR |
| 1121 | 14286 | 27341 | 2.7 | 1.5E-01 | AJ251885.1 | NT | Homo sapiens partial SLC22A2 gene for organic cation transporter (OCT2), exon 1 |
| 1137 | 14302 |  | 1.85 | 1.5E-01 | L36125.1 | NT | Rattus norvegicus insulin-responsive glucose transporter (GLUT4) gene, 5' end |
| 1243 | 14402 | 27463 | 2.37 | 1.5E-01 | AW195516.1 | EST_HUMAN | xn39d11.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2696085 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1304 | 14460 | 27526 | 3.22 | 1.5E-01 | D26535.1 | NT | Human gene for dihydrolipoamide succinyltransferase, complete cds (exon 1-15) |
| 1304 | 14460 | 27527 | 3.22 | 1.5E-01 | D26535.1 | NT | Human gene for dihydrolipoamide succinyltransferase, complete cds (exon 1-15) |
| 1511 | 14664 | 27749 | 1.38 | 1.5E-01 | AF117340.1 | NT | Mus musculus MAP kinase kinase kinase 1 (Mekk1) mRNA, complete cds |
| 1957 | 15100 | 28200 | 0.98 | 1.5E-01 | AW444451.1 | EST_HUMAN | UI-H-BI3-akb-b-09-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2733641 3' |
| 2980 | 16156 | | 0.9 | 1.5E-01 | AW572516.1 | EST_HUMAN | xw56a02.x2 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2831978 3' similar to gb:X55072_rna1 THYROID HORMONE RECEPTOR ALPHA-1 (HUMAN); |
| 3100 | 16276 | 29290 | 0.91 | 1.5E-01 | M81441.1 | NT | Bos taurus factor V variant 2 (factor V) mRNA, complete cds |
| 3118 | 16294 | 29308 | 0.62 | 1.5E-01 | O78687 | SWISSPROT | NADH-UBIQUINONE OXIDOREDUCTASE CHAIN 4 |
| 3433 | 16601 | 29620 | 5.78 | 1.5E-01 | AA935049.1 | EST_HUMAN | oo68d06.s1 NCI_CGAP_GC4 Homo sapiens cDNA clone IMAGE:1571337 3' similar to gb:M11433 RETINOL-BINDING PROTEIN I, CELLULAR (HUMAN); |
| 3454 | 16621 | 29641 | 0.73 | 1.5E-01 | Z23104.1 | NT | L.stagnalis mRNA for G protein-coupled receptor |
| 3454 | 16621 | 29642 | 0.73 | 1.5E-01 | Z23104.1 | NT | L.stagnalis mRNA for G protein-coupled receptor |
| 3851 | 17011 | 30011 | 2.35 | 1.5E-01 | U09964.1 | NT | Mus musculus ICR/Swiss glyceraldehyde 3-phosphate dehydrogenase (Gapd-S) gene, complete cds |
| 3867 | 17028 | 30025 | 0.83 | 1.5E-01 | 7108358 | NT | Homo sapiens pyruvate dehydrogenase kinase, isoenzyme 1 (PDK1), nuclear gene encoding mitochondrial protein, mRNA |
| 3881 | 17040 | 30037 | 0.77 | 1.5E-01 | M97882.1 | NT | XYNA; Thermoanaerobacterium; xynA; 4182 base-pairs |
| 3970 | 17128 | 30131 | 2.45 | 1.5E-01 | AW665983.1 | EST_HUMAN | hj10f06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2981411 3' |
| 3987 | 17144 | 30149 | 0.68 | 1.5E-01 | AJ003165.1 | NT | Populus trichocarpa cv. Trichobel ABI3 gene |
| 3987 | 17144 | 30150 | 0.68 | 1.5E-01 | AJ003165.1 | NT | Populus trichocarpa cv. Trichobel ABI3 gene |
| 4161 | 17312 | 30308 | 1.16 | 1.5E-01 | AW366659.1 | EST_HUMAN | RC2-HT0149-191099-012-c09 HT0149 Homo sapiens cDNA |
| 4210 | 17359 | 30348 | 0.67 | 1.5E-01 | Z12628.1 | NT | B.napus mitochondrion DNA for ORF158 |
| 4299 | 17442 | 30428 | 9.85 | 1.5E-01 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 4847 | 17980 | 30969 | 1.54 | 1.5E-01 | BF687665.1 | EST_HUMAN | 602067192F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4066223 5' |
| 4874 | 15891 | 29002 | 2.33 | 1.5E-01 | BF695381.1 | EST_HUMAN | 602083269F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4247537 5' |
| 5114 | 18242 | 31207 | 1.5 | 1.5E-01 | AL161560.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 60 |
| 5370 | 18573 | 31441 | 1.91 | 1.5E-01 | P07996 | SWISSPROT | THROMBOSPONDIN 1 PRECURSOR |
| 5399 | 18601 | 31571 | 1.33 | 1.5E-01 | AF256652.1 | NT | Caiman crocodilus MHC class II beta chain (hclibeta) gene, complete cds |
| 5443 | 18643 | | 5.95 | 1.5E-01 | P15196 | SWISSPROT | SEX HORMONE-BINDING GLOBULIN PRECURSOR (SHBG) (SEX STEROID-BINDING PROTEIN) (SBP) (TESTIS-SPECIFIC ANDROGEN-BINDING PROTEIN) (ABP) |
| 5655 | 18849 | 32131 | 4.8 | 1.5E-01 | AW850754.1 | EST_HUMAN | IL3-CT0219-160200-064-F10 CT0219 Homo sapiens cDNA |
| 5697 | 18891 | 32182 | 6.66 | 1.5E-01 | U65016.1 | NT | Mus musculus transforming growth factor alpha (TGFa) mRNA, complete cds |
| 5697 | 18891 | 32183 | 6.66 | 1.5E-01 | U65016.1 | NT | Mus musculus transforming growth factor alpha (TGFa) mRNA, complete cds |
| 6029 | 19212 | 32532 | 0.82 | 1.5E-01 | 4506810 | NT | Homo sapiens sodium channel, voltage-gated, type VI, alpha polypeptide (SCN6A) mRNA |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6128 | 19307 | 32647 | 1.71 | 1.5E-01 | 6753659 | NT | Mus musculus DNA methyltransferase 2 (Dnmt2), mRNA |
| 6128 | 19307 | 32648 | 1.71 | 1.5E-01 | 6753659 | NT | Mus musculus DNA methyltransferase 2 (Dnmt2), mRNA |
| 6168 | 19344 | 32690 | 2.19 | 1.5E-01 | AJ276505.1 | NT | Mus musculus genomic fragment, 279 Kb, chromosome 7 |
| 6324 | 19496 | 32852 | 3.49 | 1.5E-01 | BE727658.1 | EST_HUMAN | 601564322F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3833981 5' |
| 6376 | 19545 | | 1.98 | 1.5E-01 | 4506396 | NT | Homo sapiens RAD54 (S.cerevisiae)-like (RAD54L) mRNA |
| 6474 | 19641 | 33002 | 1.74 | 1.5E-01 | AF134907.1 | NT | Influenza B virus (B/Nanchang/480/94) NB protein gene, complete cds; and neuraminidase gene, partial cds |
| 6631 | 25828 | 33179 | 3.58 | 1.5E-01 | AE001039.1 | NT | Archaeoglobus fulgidus section 68 of 172 of the complete genome |
| 6661 | 19820 | 33207 | 4.73 | 1.5E-01 | 11417236 | NT | Homo sapiens chromosome 5 open reading frame 3 (C5ORF3), mRNA |
| 6672 | 19831 | 33220 | 1.51 | 1.5E-01 | P48508 | SWISSPROT | GLUTAMATE--CYSTEINE LIGASE REGULATORY SUBUNIT (GAMMA-GLUTAMYLCYSTEINE SYNTHETASE) (GAMMA-ECS) (GCS LIGHT CHAIN) |
| 6719 | 19876 | 33267 | 2.35 | 1.5E-01 | Q28462 | SWISSPROT | AMELOGENIN |
| 6823 | 19976 | 33383 | 0.86 | 1.5E-01 | AA714760.1 | EST_HUMAN | nw30d10.s1 NCI_CGAP_GCB0 Homo sapiens cDNA clone IMAGE:1241971 3' |
| 6852 | 20006 | 33414 | 2.24 | 1.5E-01 | P30143 | SWISSPROT | HYPOTHETICAL 51.7 KD PROTEIN IN THRC-TALB INTERGENIC REGION (ORF8) |
| 7118 | 18644 | 31500 | 6 | 1.5E-01 | AW970295.1 | EST_HUMAN | EST382376 MAGE resequences, MAGK Homo sapiens cDNA |
| 7158 | 25840 | | 0.8 | 1.5E-01 | AA811545.1 | EST_HUMAN | ob73f02.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1337019 3' similar to contains element LTR2 repetitive element ; |
| 7365 | 20444 | | 4.73 | 1.5E-01 | AF210842.1 | NT | Homo sapiens HARP (HARP) gene, exon 17 and complete cds |
| 7550 | 20622 | 34099 | 1.63 | 1.5E-01 | AI973157.1 | EST_HUMAN | wr52c08.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2491310 3' |
| 7764 | 20823 | 34314 | 0.88 | 1.5E-01 | AF299073.1 | NT | Bos taurus Niemann-Pick type C1 disease protein (NPC1) mRNA, complete cds |
| 7764 | 20823 | 34315 | 0.88 | 1.5E-01 | AF299073.1 | NT | Bos taurus Niemann-Pick type C1 disease protein (NPC1) mRNA, complete cds |
| 7775 | 20832 | 34322 | 1.68 | 1.5E-01 | AW500611.1 | EST_HUMAN | UI-HF-BN0-akk-d-05-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077409 5' |
| 7775 | 20832 | 34323 | 1.68 | 1.5E-01 | AW500611.1 | EST_HUMAN | UI-HF-BN0-akk-d-05-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077409 5' |
| 7919 | 20970 | 34477 | 0.79 | 1.5E-01 | U46560.1 | NT | Saccharomyces cerevisiae weak multicopy suppressor of los1-1 (SOL3) gene, complete cds |
| 8248 | 21330 | 34846 | 0.99 | 1.5E-01 | P21303 | SWISSPROT | MEROZOITE RECEPTOR PK66 PRECURSOR (66 KD PROTECTIVE MINOR SURFACE ANTIGEN) |
| 8414 | 21495 | 35026 | 1.1 | 1.5E-01 | AA970317.1 | EST_HUMAN | oo85g12.s1 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1573030 3' similar to gb:M26062 INTERLEUKIN-2 RECEPTOR BETA CHAIN PRECURSOR (HUMAN); |
| 8507 | 21588 | | 1.06 | 1.5E-01 | BE884799.1 | EST_HUMAN | 601510523F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912004 5' |
| 8594 | 21675 | | 14.14 | 1.5E-01 | C16800.1 | EST_HUMAN | C16800 Clontech human aorta polyA+ mRNA (#6572) Homo sapiens cDNA clone GEN-529H09 5' |
| 8628 | 21708 | 35245 | 1.87 | 1.5E-01 | L27835.1 | NT | Pangasianodon gigas growth hormone (GH) mRNA, complete cds |
| 8793 | 21872 | 35411 | 2.17 | 1.5E-01 | D84476.1 | NT | Homo sapiens mRNA for ASK1, complete cds |
| 8814 | 21893 | | 0.79 | 1.5E-01 | P43446 | SWISSPROT | WNT-10A PROTEIN PRECURSOR |
| 9038 | 22117 | 35660 | 3.12 | 1.5E-01 | 4501972 | NT | Homo sapiens adaptor-related protein complex 1, beta 1 subunit (ADTB1), mRNA |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9305 | 22381 | 35932 | 2.56 | 1.5E-01 | N74226.1 | EST_HUMAN | za59e06.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:296866 3' similar to PIR:S44443 S44443 RAD23 protein homolog2 - human ; |
| 9394 | 22469 | 36033 | 1.34 | 1.5E-01 | BF585465.1 | EST_HUMAN | GVO000404 Human Psoriasis Differential Display Homo sapiens cDNA |
| 9401 | 22475 | | 2.52 | 1.5E-01 | AV754819.1 | EST_HUMAN | AV754819 TP Homo sapiens cDNA clone TPAAHB12 5' |
| 9605 | 22660 | | 0.64 | 1.5E-01 | AU130007.1 | EST_HUMAN | AU130007 NT2RP3 Homo sapiens cDNA clone NT2RP3000080 5' |
| 9652 | 21095 | 34609 | 6.7 | 1.5E-01 | U00455.1 | NT | Acipenser transmontano vitellogenin mRNA, partial cds |
| 10022 | 23060 | 36656 | 0.71 | 1.5E-01 | M77144.1 | NT | Human type II 3-beta hydroxysteroid dehydrogenase/ 5-delta - 4-delta isomerase gene, complete cds |
| 10125 | 23163 | 36761 | 7.82 | 1.5E-01 | AF007570.1 | NT | Aplysia californica carboxypeptidase D mRNA, complete cds |
| 10125 | 23163 | 36762 | 7.82 | 1.5E-01 | AF007570.1 | NT | Aplysia californica carboxypeptidase D mRNA, complete cds |
| 10407 | 23442 | 37049 | 2.59 | 1.5E-01 | X98852.1 | NT | P.leniusculus mRNA for integrin beta subunit |
| 10495 | 23530 | | 0.51 | 1.5E-01 | AB027759.1 | NT | Mesocricetus auratus mRNA for collagen type XVII, complete cds |
| 10516 | 23551 | 37161 | 2.36 | 1.5E-01 | AI814046.1 | EST_HUMAN | wk53h12.x1 NCI_CGAP_Pr22 Homo sapiens cDNA clone IMAGE:2419175 3' similar to gb:M27508 BETA GALACTOSIDASE-RELATED PROTEIN PRECURSOR (HUMAN); |
| 10516 | 23551 | 37162 | 2.36 | 1.5E-01 | AI814046.1 | EST_HUMAN | wk53h12.x1 NCI_CGAP_Pr22 Homo sapiens cDNA clone IMAGE:2419175 3' similar to gb:M27508 BETA GALACTOSIDASE-RELATED PROTEIN PRECURSOR (HUMAN); |
| 10598 | 23633 | 37242 | 1.22 | 1.5E-01 | U40932.1 | NT | Danio rerio transcription factor Pax9b (Pax9) mRNA, complete cds. |
| 10761 | 23794 | 37413 | 1.69 | 1.5E-01 | AJ011964.1 | NT | Claviceps purpurea ps1 gene |
| 10761 | 23794 | 37414 | 1.69 | 1.5E-01 | AJ011964.1 | NT | Claviceps purpurea ps1 gene |
| 10935 | 24017 | 37649 | 1.67 | 1.5E-01 | BE088492.1 | EST_HUMAN | CM2-BT0688-210300-122-f11 BT0688 Homo sapiens cDNA |
| 10936 | 24017 | 37650 | 1.67 | 1.5E-01 | BE088492.1 | EST_HUMAN | CM2-BT0688-210300-122-f11 BT0688 Homo sapiens cDNA |
| 11063 | 24139 | 37773 | 4.46 | 1.6E-01 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 11063 | 24139 | 37774 | 4.46 | 1.5E-01 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 11331 | 24394 | 38042 | 1.38 | 1.5E-01 | AW841915.1 | EST_HUMAN | IL5-CN0024-030300-025-D04 CN0024 Homo sapiens cDNA |
| 11925 | 24911 | | 1.34 | 1.5E-01 | AI193704.1 | EST_HUMAN | qe72e01.x1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:1744536 3' similar to gb:M17887 60S ACIDIC RIBOSOMAL PROTEIN P2 (HUMAN); |
| 12232 | 25953 | | 38.98 | 1.5E-01 | BF700582.1 | EST_HUMAN | 602128753F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4285549 5' |
| 12629 | 25422 | | 1.64 | 1.5E-01 | AF030358.2 | NT | Rattus norvegicus chemokine CX3C mRNA, complete cds |
| 12633 | 25426 | | 1.23 | 1.5E-01 | AJ238332.1 | NT | Mus musculus mRNA for death inducer-obliterator-1 (Dio-1) |
| 12696 | 25976 | | 6.64 | 1.5E-01 | R83077.1 | EST_HUMAN | yp87c04.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:194430 5' |
| 12749 | 25496 | | 1.52 | 1.5E-01 | AP001514.1 | NT | Bacillus halodurans genomic DNA, section 8/14 |
| 12778 | 25520 | 32002 | 1.41 | 1.5E-01 | 9695413 | NT | Lymphocystis disease virus 1, complete genome |
| 12807 | 26000 | | 2.59 | 1.5E-01 | AV741272.1 | EST_HUMAN | AV741272 CB Homo sapiens cDNA clone CBDAGD04 5' |
| 12932 | 25896 | 31857 | 7.68 | 1.5E-01 | AL139074.2 | NT | Campylobacter jejuni NCTC11168 complete genome; segment 1/6 |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 13183 | 25769 | 31932 | 6.61 | 1.5E-01 | AJ276242.1 | NT | Sus scrofa mRNA for sodium iodide symporter |
| 13227 | 26138 | | 2.26 | 1.5E-01 | 9631294 | NT | Melanoplus sanguinipes entomopoxvirus, complete genome |
| 310 | 13526 | | 1.23 | 1.4E-01 | AF009663.1 | NT | Homo sapiens T cell receptor beta locus, TCRBV8S5P to TCRBV21S2A2 region |
| 933 | 14108 | | 3.24 | 1.4E-01 | D78638.1 | NT | Xenopus laevis mRNA for DNA (cytosine-5-)-methyltransferase, complete cds |
| 1288 | 14444 | | 2.99 | 1.4E-01 | T91864.1 | EST_HUMAN | yd54c01.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:112032 3' |
| 1787 | 14936 | | 1.46 | 1.4E-01 | 6679980 | NT | Mus musculus growth differentiation factor 5 (Gdf5), mRNA |
| 1790 | 14939 | 28032 | 1.84 | 1.4E-01 | AE001710.1 | NT | Thermotoga maritima section 22 of 136 of the complete genome |
| 1954 | 15097 | | 1.27 | 1.4E-01 | AW135741.1 | EST_HUMAN | UI-H-BI1-acf-a-09-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2714009 3' |
| 2042 | 15183 | | 14.84 | 1.4E-01 | AA720615.1 | EST_HUMAN | ny72d07.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1283821 3' |
| 2544 | 15669 | 28793 | 1.02 | 1.4E-01 | P30706 | SWISSPROT | GLYCEROL-3-PHOSPHATE ACYLTRANSFERASE PRECURSOR (GPAT) |
| 2853 | 15967 | 29077 | 3.34 | 1.4E-01 | AI933496.1 | EST_HUMAN | wm74d01.x1 NCI_CGAP_Ut2 Homo sapiens cDNA clone IMAGE:2441665 3' |
| 4289 | 17434 | 30421 | 9.45 | 1.4E-01 | AI699094.1 | EST_HUMAN | tx56c02.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2273570 3' |
| 4289 | 17434 | 30422 | 9.45 | 1.4E-01 | AI699094.1 | EST_HUMAN | tx56c02.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2273570 3' |
| 4352 | 17495 | 30475 | 4.28 | 1.4E-01 | AE001710.1 | NT | Thermotoga maritima section 22 of 136 of the complete genome |
| 4531 | 17669 | | 0.7 | 1.4E-01 | AA776287.1 | EST_HUMAN | zj50b01.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:453673 3' similar to gb:X01057_rna1 INTERLEUKIN-2 RECEPTOR ALPHA CHAIN PRECURSOR (HUMAN);contains Alu repetitive element; |
| 4798 | 17933 | 30920 | 0.79 | 1.4E-01 | 5453861 | NT | Homo sapiens phosphodiesterase 4A, cAMP-specific (dunce (Drosophila)-homolog phosphodiesterase E2) (PDE4A), mRNA |
| 5322 | 18436 | 31406 | 0.62 | 1.4E-01 | AJ005180.1 | NT | Lycopersicon esculentum genomic RAPD band 26 |
| 5421 | 18622 | 31598 | 5.21 | 1.4E-01 | T90677.1 | EST_HUMAN | ye15c11.s1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:117812 3' |
| 5444 | 18644 | 31621 | 4.33 | 1.4E-01 | AB004556.1 | NT | Candida tropicalis DNA for mitochondrial NADP-linked isocitrate dehydrogenase, complete cds |
| 5444 | 18644 | 31622 | 4.33 | 1.4E-01 | AB004556.1 | NT | Candida tropicalis DNA for mitochondrial NADP-linked isocitrate dehydrogenase, complete cds |
| 6427 | 19595 | 32961 | 3.17 | 1.4E-01 | BE326891.1 | EST_HUMAN | hr67c02.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3133538 3' |
| 6611 | 19771 | 33161 | 4.45 | 1.4E-01 | AU117147.1 | EST_HUMAN | AU117147 HEMBA1 Homo sapiens cDNA clone HEMBA1000769 5' |
| 6611 | 19771 | 33162 | 4.45 | 1.4E-01 | AU117147.1 | EST_HUMAN | AU117147 HEMBA1 Homo sapiens cDNA clone HEMBA1000769 5' |
| 6701 | 19859 | 33249 | 3.7 | 1.4E-01 | AW082796.1 | EST_HUMAN | xb71d12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2581751 3' |
| 6715 | 19873 | | 1.51 | 1.4E-01 | BE266536.1 | EST_HUMAN | 601193523F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3537581 5' |
| 6739 | 19895 | 33286 | 2.48 | 1.4E-01 | BF378533.1 | EST_HUMAN | QV1-UM0036-080300-103-d09 UM0036 Homo sapiens cDNA |
| 7276 | 20359 | | 0.71 | 1.4E-01 | AL118568.1 | EST_HUMAN | DKFZp761A0910_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761A0910 5' |
| 7545 | 20617 | | 1.78 | 1.4E-01 | AW015373.1 | EST_HUMAN | UI-H-BI0-aat-c-09-0-UI.s1 NCI_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2710289 3' |
| 7618 | 20688 | | 0.73 | 1.4E-01 | AI762827.1 | EST_HUMAN | wi04f12.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2389295 3' similar to SW:ICE4_HUMAN P49662 CASPASE-4 PRECURSOR ; |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7621 | 20691 | 34167 | 0.63 | 1.4E-01 | T53770.1 | EST_HUMAN | ya90f11.r2 Stratagene placenta (#937225) Homo sapiens cDNA clone IMAGE:68973 5' similar to contains Alu repetitive element |
| 7799 | 20855 | 34345 | 0.95 | 1.4E-01 | U85645.1 | NT | Oryctolagus cuniculus fructose 1,6, bisphosphate aldolase (AldB) gene, complete cds |
| 7932 | 20982 | 34490 | 1.02 | 1.4E-01 | AI305192.1 | EST_HUMAN | qi90b12.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1879583 3' |
| 8162 | 21244 | | 0.54 | 1.4E-01 | BF310258.1 | EST_HUMAN | 601894760F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4124199 5' |
| 8670 | 21750 | | 1.32 | 1.4E-01 | AV659047.1 | EST_HUMAN | AV659047 GLC Homo sapiens cDNA clone GLCFSH06 3' |
| 8984 | 22063 | | 0.6 | 1.4E-01 | AI436093.1 | EST_HUMAN | th92b12.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2126111 3' similar to TR:O02710 O02710 GAG POLYPROTEIN. ; |
| 9114 | 22193 | 35738 | 4.94 | 1.4E-01 | AA307073.1 | EST_HUMAN | EST178192 Colon carcinoma (HCC) cell line Homo sapiens cDNA 5' end |
| 9194 | 22272 | 35810 | 0.76 | 1.4E-01 | AW023636.1 | EST_HUMAN | df58b03.y1 Morton Fetal Cochlea Homo sapiens cDNA clone IMAGE:2487485 5' |
| 9322 | 22398 | 35951 | 1.07 | 1.4E-01 | R62746.1 | EST_HUMAN | yi10h05.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:138873 5' |
| 9322 | 22398 | 35952 | 1.07 | 1.4E-01 | R62746.1 | EST_HUMAN | yi10h05.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:138873 5' |
| 9388 | 22463 | 36027 | 8.52 | 1.4E-01 | BF310959.1 | EST_HUMAN | 601895465F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4124824 5' |
| 9475 | 22532 | 36096 | 1.72 | 1.4E-01 | W93411.1 | EST_HUMAN | zd94a04.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:357102 5' similar to contains element KER repetitive element ; |
| 9547 | 22612 | 36180 | 0.54 | 1.4E-01 | X73293.1 | NT | M.vannielii genes rpoH, rpoB and rpoA |
| 9547 | 22612 | 36181 | 0.54 | 1.4E-01 | X73293.1 | NT | M.vannielii genes rpoH, rpoB and rpoA |
| 9558 | 22623 | 36194 | 1.65 | 1.4E-01 | Y10196.1 | NT | Homo sapiens PHEX gene |
| 9558 | 22623 | 36195 | 1.65 | 1.4E-01 | Y10196.1 | NT | Homo sapiens PHEX gene |
| 9849 | 21092 | 34607 | 1.81 | 1.4E-01 | AF121361.1 | NT | Drosophila melanogaster signal transducting adaptor protein (STAM), serine threonine kinase lal (IAL), and zinc finger protein (DNZ1) genes, complete cds |
| 10009 | 23047 | 36641 | 0.54 | 1.4E-01 | X66092.1 | NT | C.perfringens ORF for putative membrane transport protein |
| 10192 | 23229 | 36821 | 0.89 | 1.4E-01 | AF023813.1 | NT | Macromitrium levatum small ribosomal protein 4 (rps4) gene, chloroplast gene encoding chloroplast protein, partial cds |
| 10293 | 23328 | 36931 | 0.81 | 1.4E-01 | AW021908.1 | EST_HUMAN | df29h08.y1 Morton Fetal Cochlea Homo sapiens cDNA clone IMAGE:2485094 5' |
| 10293 | 23328 | 36932 | 0.81 | 1.4E-01 | AW021908.1 | EST_HUMAN | df29h08.y1 Morton Fetal Cochlea Homo sapiens cDNA clone IMAGE:2485094 5' |
| 10463 | 23498 | 37109 | 0.76 | 1.4E-01 | BF375285.1 | EST_HUMAN | MR3-ST0218-211299-013-a08 ST0218 Homo sapiens cDNA |
| 10463 | 23498 | 37110 | 0.76 | 1.4E-01 | BF375285.1 | EST_HUMAN | MR3-ST0218-211299-013-a08 ST0218 Homo sapiens cDNA |
| 10680 | 23714 | | 0.51 | 1.4E-01 | T84293.1 | EST_HUMAN | yd47d03.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:111365 5' |
| 10825 | 23858 | 37481 | 0.7 | 1.4E-01 | Z99117.1 | NT | Bacillus subtilis complete genome (section 14 of 21): from 2599451 to 2812870 |
| 10948 | 24030 | | 1.32 | 1.4E-01 | AA811480.1 | EST_HUMAN | oa99a03.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1320364 3' |
| 11081 | 24156 | 37793 | 2.57 | 1.4E-01 | R53400.1 | EST_HUMAN | yj70c05.r1 Soares breast 2NbHBst Homo sapiens cDNA clone IMAGE:154088 5' |
| 11282 | 24348 | 37985 | 1.69 | 1.4E-01 | AW104982.1 | EST_HUMAN | xd73e10.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2603274 3' |
| 11354 | 24416 | 38071 | 1.58 | 1.4E-01 | T96102.1 | EST_HUMAN | ye47g10.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:120930 5' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11354 | 24416 | 38072 | 1.58 | 1.4E-01 | T96102.1 | EST_HUMAN | ye47g10.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:120930 5' |
| 11356 | 24418 | 38075 | 2.36 | 1.4E-01 | P08648 | SWISSPROT | INTEGRIN ALPHA-5 PRECURSOR (FIBRONECTIN RECEPTOR ALPHA SUBUNIT) (INTEGRIN ALPHA-F) (VLA-5) (CD49E) |
| 11572 | 24627 | 38306 | 1.85 | 1.4E-01 | X66092.1 | NT | C.perfringens ORF for putative membrane transport protein |
| 11613 | 20617 | | 1.57 | 1.4E-01 | AW015373.1 | EST_HUMAN | UI-H-BI0-aat-c-09-0-UI.s1 NCI_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2710289 3' |
| 11757 | 23943 | 37570 | 2.07 | 1.4E-01 | U28760.1 | NT | Borrelia burgdorferi glyceraldehyde-3-phosphate dehydrogenase (GAPDH), phosphoglycerate kinase (PGK), triosephosphate isomerase (TPI) genes, complete cds |
| 11816 | 24806 | | 1.51 | 1.4E-01 | X52102.1 | NT | M.musculus p16K gene for 16 kDa protein |
| 12038 | 25020 | 38724 | 10.18 | 1.4E-01 | AF146793.2 | NT | Mus musculus neuromedin U precursor (Nmu) gene, partial cds; tPhLP (Tphlp) gene, partial cds; CLOCK (Clock) gene, complete cds; PFT27 (Pft27) gene, complete cds; and H5AR (H5ar) gene, complete cds |
| 12560 | 25382 | 32038 | 4.68 | 1.4E-01 | X74773.1 | NT | P.salina plastid gene secY |
| 12574 | 25390 | | 3.28 | 1.4E-01 | 11968117 | NT | Rattus norvegious doomin (Doc), mRNA |
| 12605 | 25405 | | 1.71 | 1.4E-01 | BE964835.2 | EST_HUMAN | 601658490R1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3885671 3' |
| 12627 | 26175 | | 2.83 | 1.4E-01 | BE513802.1 | EST_HUMAN | 601315638F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3634329 5' |
| 12724 | 25482 | | 7.52 | 1.4E-01 | AF083221.1 | NT | Fugu rubripes putative neurotransmitter receptors, YDR140w homolog, and glycinamide ribonucleotide transformylase (GART) genes, complete cds |
| 12742 | 25493 | | 4.02 | 1.4E-01 | D64004.1 | NT | Synechocystis sp. PCC6803 complete genome, 23/27, 2868767-3002965 |
| 12834 | 26193 | | 3.2 | 1.4E-01 | P10447 | SWISSPROT | TYROSINE-PROTEIN KINASE TRANSFORMING PROTEIN ABL |
| 12928 | 25612 | | 1.45 | 1.4E-01 | X69192.1 | NT | V.planifolia mRNA for methyltransferase |
| 13084 | 25977 | | 3.36 | 1.4E-01 | D82983.1 | NT | Mus musculus mRNA for prolidase, complete cds |
| 13178 | 25765 | | 1.68 | 1.4E-01 | AW377998.1 | EST_HUMAN | MR0-HT0208-221299-204-c08 HT0208 Homo sapiens cDNA |
| 332 | 13546 | 26576 | 2.27 | 1.3E-01 | 4758467 | NT | Homo sapiens G protein-coupled receptor 50 (GPR50) mRNA |
| 332 | 13546 | 26577 | 2.27 | 1.3E-01 | 4758467 | NT | Homo sapiens G protein-coupled receptor 50 (GPR50) mRNA |
| 542 | 13735 | 26769 | 1.88 | 1.3E-01 | AB013139.1 | NT | Homo sapiens gene for NBS1, complete cds |
| 653 | 13839 | 26866 | 2.43 | 1.3E-01 | AJ277606.1 | NT | Human calicivirus HU/NLV/Girlington/93/UK RNA for capsid protein (ORF2), strain HU/NLV/Girlington/93/UK |
| 653 | 13839 | 26867 | 2.43 | 1.3E-01 | AJ277606.1 | NT | Human calicivirus HU/NLV/Girlington/93/UK RNA for capsid protein (ORF2), strain HU/NLV/Girlington/93/UK |
| 867 | 14043 | 27108 | 1.55 | 1.3E-01 | X53330.1 | NT | P.dumerilii histone gene cluster for core histones H2A, H2B, H3 and H4 |
| 917 | 14092 | 27157 | 1.26 | 1.3E-01 | AF139518.1 | NT | Rattus norvegicus A-kinase anchor protein mRNA, complete cds |
| 1052 | 14218 | 27274 | 2.14 | 1.3E-01 | AL117078.1 | NT | Botrytis cinerea strain T4 cDNA library under conditions of nitrogen deprivation |
| 1151 | 14315 | | 2.04 | 1.3E-01 | AL115265.1 | NT | Botrytis cinerea strain T4 cDNA library under conditions of nitrogen deprivation |
| 1242 | 14401 | 27462 | 1.67 | 1.3E-01 | AV712467.1 | EST_HUMAN | AV712467 DCA Homo sapiens cDNA clone DCAAFF05 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1475 | 14628 | | 0.97 | 1.3E-01 | AF146277.1 | NT | Homo sapiens adapter protein CMS mRNA, complete cds |
| 1905 | 15048 | 28159 | 1.02 | 1.3E-01 | 6680957 | NT | Mus musculus procollagen, type XI, alpha 1 (Col11a1), mRNA |
| 2014 | 15154 | 28259 | 2.73 | 1.3E-01 | AL117078.1 | NT | Botrytis cinerea strain T4 cDNA library under conditions of nitrogen deprivation |
| 2239 | 15372 | | 1.09 | 1.3E-01 | AJ243578.1 | NT | Rhodopseudomonas acidophila pucB5, pucA5, pucB6, pucA6, pucB7, pucA7, pucB8, pucA8 and pucC genes and ORF151 |
| 2364 | 15495 | | 1.38 | 1.3E-01 | AW812104.1 | EST_HUMAN | RC4-ST0173-191099-032-d12 ST0173 Homo sapiens cDNA |
| 2455 | 15583 | | 3.31 | 1.3E-01 | AE001016.1 | NT | Archaeoglobus fulgidus section 91 of 172 of the complete genome |
| 2653 | 15776 | 28889 | 2.78 | 1.3E-01 | M86918.1 | NT | Carassius auratus keratin type I mRNA, complete cds |
| 3440 | 16608 | 29626 | 1.21 | 1.3E-01 | AF196779.1 | NT | Homo sapiens transcription factor IGHM enhancer 3, JM11 protein, JM4 protein, JM5 protein, T54 protein, JM10 protein, A4 differentiation-dependent protein, triple LIM domain protein 6, and synaptophysin genes, complete cds; and L-type calcium channel a> |
| 3539 | 16704 | 29715 | 1.11 | 1.3E-01 | M21572.1 | NT | Bovine branched chain alpha-keto acid dihydrolipoyl transacylase mRNA, complete cds |
| 3816 | 16976 | 29979 | 0.85 | 1.3E-01 | AP000001.1 | NT | Pyrococcus horikoshii OT3 genomic DNA, 1-287000 nt. position (1/7) |
| 3816 | 16976 | 29980 | 0.85 | 1.3E-01 | AP000001.1 | NT | Pyrococcus horikoshii OT3 genomic DNA, 1-287000 nt. position (1/7) |
| 3822 | 16982 | 29985 | 1.55 | 1.3E-01 | AB032159.1 | NT | Homo sapiens DD4 gene for dihydrodiol dehydrogenase 4 [AKR 1C4], exon 2 |
| 3905 | 17064 | 30063 | 0.66 | 1.3E-01 | 6978840 | NT | Rattus norvegicus Fibrinogen, gamma polypeptide (Fgg), mRNA |
| 4096 | 17251 | | 1.08 | 1.3E-01 | AL161581.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 77 |
| 4162 | 13839 | 26866 | 0.88 | 1.3E-01 | AJ277606.1 | NT | Human calicivirus HU/NLV/Girlington/93/UK RNA for capsid protein (ORF2), strain HU/NLV/Girlington/93/UK |
| 4162 | 13839 | 26867 | 0.88 | 1.3E-01 | AJ277606.1 | NT | Human calicivirus HU/NLV/Girlington/93/UK RNA for capsid protein (ORF2), strain HU/NLV/Girlington/93/UK |
| 4257 | 17402 | | 0.82 | 1.3E-01 | AF020713.1 | NT | Bacteriophage SPBc2 complete genome |
| 4274 | 17419 | | 3.74 | 1.3E-01 | AW364341.1 | EST_HUMAN | QV3-DT0018-081299-036-a03 DT0018 Homo sapiens cDNA |
| 4281 | 17426 | 30415 | 1.82 | 1.3E-01 | AF026805.1 | NT | Schistosoma mansoni fructose bisphosphate aldolase mRNA, complete cds |
| 4302 | 17445 | 30431 | 21.62 | 1.3E-01 | AW273741.1 | EST_HUMAN | xv23f10.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2813995 3' |
| 4434 | 17574 | | 1.19 | 1.3E-01 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 4601 | 17738 | 30717 | 0.61 | 1.3E-01 | M21572.1 | NT | Bovine branched chain alpha-keto acid dihydrolipoyl transacylase mRNA, complete cds |
| 4656 | 17792 | 30776 | 2.54 | 1.3E-01 | BE272339.1 | EST_HUMAN | 601126098F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:2990063 5' |
| 4748 | 17883 | 30865 | 0.73 | 1.3E-01 | BF679654.1 | EST_HUMAN | 602154306F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4295544 5' |
| 5314 | 18431 | 31401 | 0.78 | 1.3E-01 | AP000005.1 | NT | Pyrococcus horikoshii OT3 genomic DNA, 994001-1166000 nt. position (5/7) |
| 5440 | 18640 | 31619 | 1.01 | 1.3E-01 | AW466988.1 | EST_HUMAN | he07b06.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2872979 3' similar to contains L1.b1 L1 L1 repetitive element ; |
| 5478 | 18677 | 31690 | 1.83 | 1.3E-01 | AW804417.1 | EST_HUMAN | QV0-UM0093-100400-189-a06 UM0093 Homo sapiens cDNA |
| 5618 | 18812 | | 0.92 | 1.3E-01 | AF107793.1 | NT | Emericella nidulans DNA-dependent RNA polymerase II RPB140 (RPB2) gene, partial cds |

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## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6702 | 18895 | | 0.67 | 1.3E-01 | AF056880.1 | NT | Hepatitis C virus 68_CL10 genome polyprotein gene, partial cds |
| 5842 | 19032 | 32338 | 0.72 | 1.3E-01 | BF210920.1 | EST_HUMAN | 601874591F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4101119 5' |
| 6107 | 19287 | 32621 | 0.58 | 1.3E-01 | BF527281.1 | EST_HUMAN | 602039337F2 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4177233 5' |
| 6107 | 19287 | 32622 | 0.58 | 1.3E-01 | BF527281.1 | EST_HUMAN | 602039337F2 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4177233 5' |
| 6612 | 19772 | 33163 | 18.92 | 1.3E-01 | AB031326.1 | NT | Schizosaccharomyces pombe gene for Alp41, complete cds |
| 6698 | 19856 | 33246 | 2.26 | 1.3E-01 | X88891.1 | NT | C.jacchus intron 4 of visual pigment gene (red allele) |
| 6927 | 20242 | | 0.74 | 1.3E-01 | W26367.1 | EST_HUMAN | 26f3 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |
| 6974 | 20202 | 33628 | 0.7 | 1.3E-01 | BE782926.1 | EST_HUMAN | 601465957F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3869079 5' |
| 6974 | 20202 | 33629 | 0.7 | 1.3E-01 | BE782926.1 | EST_HUMAN | 601465957F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3869079 5' |
| 7155 | 20289 | | 0.74 | 1.3E-01 | BF529560.1 | EST_HUMAN | 602044345F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4181866 5' |
| 7412 | 20490 | | 1.97 | 1.3E-01 | H48664.1 | EST_HUMAN | yr33d02.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:207075 5' |
| 8146 | 21228 | | 0.79 | 1.3E-01 | BE272339.1 | EST_HUMAN | 601126096F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:2990063 5' |
| 8160 | 21242 | 34762 | 1.68 | 1.3E-01 | 11423294 | NT | Homo sapiens PRO0611 protein (PRO0611), mRNA |
| 8192 | 21274 | 34797 | 1.32 | 1.3E-01 | BF690522.1 | EST_HUMAN | 602187015T1 NIH_MGC_49 Homo sapiens cDNA clone IMAGE:4299074 3' |
| 8469 | 21550 | 35080 | 0.66 | 1.3E-01 | 11421556 | NT | Homo sapiens TED protein (TED), mRNA |
| 8540 | 21621 | | 4.24 | 1.3E-01 | Z74102.1 | NT | S.cerevisiae chromosome IV reading frame ORF YDL054c |
| 8580 | 21661 | | 4.96 | 1.3E-01 | 8923919 | NT | Homo sapiens core histone macroH2A2.2 (MACROH2A2), mRNA |
| 8725 | 21805 | 35342 | 1.26 | 1.3E-01 | BF690522.1 | EST_HUMAN | 602187016T1 NIH_MGC_49 Homo sapiens cDNA clone IMAGE:4299074 3' |
| 9149 | 22227 | 35770 | 0.57 | 1.3E-01 | R11172.1 | EST_HUMAN | yf39g11.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:129284 5' similar to SP:RL2B_RAT P29316 60S RIBOSOMAL PROTEIN ; |
| 9149 | 22227 | 35771 | 0.57 | 1.3E-01 | R11172.1 | EST_HUMAN | yf39g11.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:129284 5' similar to SP:RL2B_RAT P29316 60S RIBOSOMAL PROTEIN ; |
| 9420 | 22494 | 36060 | 0.69 | 1.3E-01 | 11068003 | NT | *Plutella xylostella granulovirus, complete genome* |
| 9420 | 22494 | 36061 | 0.69 | 1.3E-01 | 11068003 | NT | Plutella xylostella granulovirus, complete genome |
| 9672 | 22634 | 36204 | 4.19 | 1.3E-01 | AF023129.1 | NT | Oryctolagus cuniculus H+,K+-ATPase alpha 2c subunit mRNA, complete cds |
| 9973 | 23012 | | 0.73 | 1.3E-01 | N86348.1 | EST_HUMAN | J7837F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone J7837 5' similar to B-CELL RECEPTOR ASSOCIATED PROTEIN (BAP) 29 |
| 10257 | 23292 | | 1.07 | 1.3E-01 | 8393940 | NT | Rattus norvegicus peptidyl arginine deiminase, type IV (Pdi4), mRNA |
| 10335 | 23370 | 36980 | 0.95 | 1.3E-01 | AW851599.1 | EST_HUMAN | MR2-CT0222-201099-001-e01 CT0222 Homo sapiens cDNA |
| 10603 | 25864 | 37244 | 1.08 | 1.3E-01 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 10743 | 23776 | 37389 | 0.65 | 1.3E-01 | AU121237.1 | EST_HUMAN | AU121237 HEMBB1 Homo sapiens cDNA clone HEMBB1002387 5' |
| 10797 | 23830 | 37454 | 0.45 | 1.3E-01 | AW247836.1 | EST_HUMAN | 2820637.3prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2820637 3' |
| 10868 | 23953 | | 2.31 | 1.3E-01 | BF330999.1 | EST_HUMAN | MR4-BT0358-130700-010-h08 BT0358 Homo sapiens cDNA |
| 11455 | 24515 | | 1.34 | 1.3E-01 | BF092708.1 | EST_HUMAN | MR4-TN0112-120900-102-e08 TN0112 Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11529 | 24585 | | 3.2 | 1.3E-01 | 6671745 | NT | Mus musculus cofilin 2, muscle (Cfl2), mRNA |
| 11616 | 24667 | 38354 | 2.42 | 1.3E-01 | BF677328.1 | EST_HUMAN | 602087045F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4251346 5' |
| 11616 | 24667 | 38355 | 2.42 | 1.3E-01 | BF677328.1 | EST_HUMAN | 602087045F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4251346 5' |
| 11895 | 24883 | 38581 | 7.96 | 1.3E-01 | BE279449.1 | EST_HUMAN | 601158052F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3504804 5' |
| 12000 | 24985 | | 1.41 | 1.3E-01 | AF012836.1 | NT | Thermococcus litoralis trehalose/maltose transporter operon including trehalose/maltose binding protein (malE) and inner membrane proteins MalF (malF) and MalG (malG) genes, complete cds |
| 12023 | 25007 | 38708 | 1.72 | 1.3E-01 | BE619364.1 | EST_HUMAN | 601473369F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3876208 5' |
| 12052 | 25033 | 38739 | 1.52 | 1.3E-01 | BF683555.1 | EST_HUMAN | 602139760F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4300863 5' |
| 12399 | 25279 | 32080 | 2.13 | 1.3E-01 | BE618346.1 | EST_HUMAN | 601462741F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3866003 5' |
| 12543 | 25368 | | 6.39 | 1.3E-01 | AJ242790.1 | NT | Gallus gallus scyc1 gene for lymphotactin, exons 1-3 |
| 12964 | 25627 | | 1.31 | 1.3E-01 | AB026829.1 | NT | Ephydatia fluviatilis mRNA for sALK-6, complete cds |
| 12995 | 25647 | | 1.87 | 1.3E-01 | AW001114.1 | EST_HUMAN | wu24d09.x1 Soares_Dieckgraefe_colon_NHCD Homo sapiens cDNA clone IMAGE:2520977 3' similar to TR:O60287 O60287 KIAA0539 PROTEIN. ; |
| 394 | 13631 | 26668 | 13.87 | 1.2E-01 | AI421744.1 | EST_HUMAN | tf39b02.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2098539 3' similar to gb:U05760_rna1 ANNEXIN V (HUMAN); |
| 437 | 13237 | | 1.42 | 1.2E-01 | U66912.1 | NT | Dictyostelium discoideum ORF DG1016 gene, partial cds |
| 561 | 13753 | | 3.82 | 1.2E-01 | AF039442.1 | NT | Homo sapiens colon cancer antigen NY-CO-45 mRNA, partial cds |
| 1408 | 14662 | 27636 | 2.32 | 1.2E-01 | AU149146.1 | EST_HUMAN | AU149146 NT2RM4 Homo sapiens cDNA clone NT2RM4001691 3' |
| 1408 | 14562 | 27637 | 2.32 | 1.2E-01 | AU149146.1 | EST_HUMAN | AU149146 NT2RM4 Homo sapiens cDNA clone NT2RM4001691 3' |
| 1414 | 14568 | | 3.35 | 1.2E-01 | AV735249.1 | EST_HUMAN | AV735249 cdA Homo sapiens cDNA clone cdAAJB11 5' |
| 1419 | 14672 | | 0.94 | 1.2E-01 | AL445066.1 | NT | Thermoplasma acidophilum complete genome; segment 4/5 |
| 1536 | 14689 | | 0.94 | 1.2E-01 | AA897474.1 | EST_HUMAN | al48e09.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1460584 3' similar to TR:Q16671 Q16671 ANTI-MULLERIAN HORMONE TYPE II RECEPTOR PRECURSOR. ; |
| 1660 | 14812 | 27897 | 1.1 | 1.2E-01 | Q14934 | SWISSPROT | NUCLEAR FACTOR OF ACTIVATED T-CELLS, CYTOPLASMIC 4 (T CELL TRANSCRIPTION FACTOR NFAT3) (NF-ATC4) (NF-AT3) |
| 1682 | 14834 | 27919 | 2.88 | 1.2E-01 | AI285402.1 | EST_HUMAN | qt69f09.x1 NCI_CGAP_Eso2 Homo sapiens cDNA clone IMAGE:1960553 3' |
| 1808 | 14957 | | 25.75 | 1.2E-01 | X89211.1 | NT | H.sapiens DNA for endogenous retroviral like element |
| 1970 | 15113 | | 1.66 | 1.2E-01 | AW449368.1 | EST_HUMAN | UI-H-BI3-akl-e-10-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2734554 3' |
| 2253 | 15386 | 28514 | 1.66 | 1.2E-01 | BF248490.1 | EST_HUMAN | 601821567F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4046224 5' |
| 2450 | 15578 | | 0.99 | 1.2E-01 | Z21405.1 | EST_HUMAN | HSAAAEBZT TEST1, Human adult Testis tissue Homo sapiens cDNA |
| 2656 | 15779 | 28893 | 1.84 | 1.2E-01 | AW996556.1 | EST_HUMAN | QV3-BN0046-220300-129-f10 BN0046 Homo sapiens cDNA |
| 2905 | 16083 | 29098 | 1.16 | 1.2E-01 | U18018.1 | NT | Human E1A enhancer binding protein (E1A-F) mRNA, partial cds |
| 2967 | 16143 | 29162 | 1.9 | 1.2E-01 | AI720470.1 | EST_HUMAN | as80c09.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2335024 3' similar to gb:L05095 60S RIBOSOMAL PROTEIN L30 (HUMAN); |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3001 | 16177 | 29198 | 3.44 | 1.2E-01 | M16364.1 | NT | Human creatine kinase-B mRNA, complete cds |
| 3068 | 16244 | 29265 | 0.91 | 1.2E-01 | X56882.1 | NT | Wheat mRNA for a group 3 late embryogenesis abundant protein (LEA) |
| 3302 | 16476 | 29498 | 2.52 | 1.2E-01 | AW370668.1 | EST_HUMAN | QV1-BT0259-261099-021-d05 BT0259 Homo sapiens cDNA |
| 3330 | 16503 |  | 0.74 | 1.2E-01 | U67600.1 | NT | Methanococcus jannaschii section 142 of 150 of the complete genome |
| 3568 | 16733 |  | 0.66 | 1.2E-01 | Z99118.1 | NT | Bacillus subtilis complete genome (section 15 of 21): from 2795131 to 3013540 |
| 3610 | 16774 | 29789 | 1.12 | 1.2E-01 | X56882.1 | NT | Wheat mRNA for a group 3 late embryogenesis abundant protein (LEA) |
| 3610 | 16774 | 29790 | 1.12 | 1.2E-01 | X56882.1 | NT | Wheat mRNA for a group 3 late embryogenesis abundant protein (LEA) |
| 3694 | 16733 |  | 1.22 | 1.2E-01 | Z99118.1 | NT | Bacillus subtilis complete genome (section 15 of 21): from 2795131 to 3013540 |
| 3865 | 17024 |  | 0.95 | 1.2E-01 | BF128551.1 | EST_HUMAN | 601810786R1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4053668 3' |
| 4298 | 17441 | 30426 | 2.1 | 1.2E-01 | Z54265.1 | NT | P.clarkii mRNA; repeat region (ID 2MRT7) |
| 4298 | 17441 | 30427 | 2.1 | 1.2E-01 | Z54255.1 | NT | P.clarkii mRNA; repeat region (ID 2MRT7) |
| 4431 | 17571 | 30552 | 0.59 | 1.2E-01 | M15861.1 | NT | Chicken neural cell-adhesion molecule (N-CAM) gene, exon 19 |
| 4942 | 18072 |  | 1.94 | 1.2E-01 | X73416.1 | NT | W.suaveolens mitochondrial orf1 |
| 5364 | 18567 | 31433 | 0.89 | 1.2E-01 | AA744369.1 | EST_HUMAN | ny63c04.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1282950 3' |
| 5415 | 18617 | 31591 | 0.93 | 1.2E-01 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 5425 | 18626 | 31601 | 2.5 | 1.2E-01 | W33035.1 | EST_HUMAN | zc08d02.r1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:321699 5' |
| 5484 | 18683 | 31700 | 1.65 | 1.2E-01 | Z98266.1 | NT | Homo sapiens gene encoding plakophilin (exons 1-13) |
| 5622 | 18816 | 31885 | 1.14 | 1.2E-01 | Z48234.1 | NT | M.domestica Borkh. Granny Smith adh mRNA for alcohol dehydrogenase |
| 6329 | 19500 | 32858 | 1.9 | 1.2E-01 | BE620945.1 | EST_HUMAN | 601493518F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3895613 5' |
| 6377 | 19546 | 32903 | 0.81 | 1.2E-01 | P10842 | SWISSPROT | MATING-TYPE P-SPECIFIC POLYPEPTIDE PI |
| 6428 | 19596 | 32962 | 2.26 | 1.2E-01 | AW845275.1 | EST_HUMAN | IL0-CT0031-221099-113-e04 CT0031 Homo sapiens cDNA |
| 6493 | 19659 | 33022 | 1.52 | 1.2E-01 | M26925.1 | NT | Mouse galactosyltransferase mRNA, complete cds |
| 6561 | 19723 | 33101 | 0.58 | 1.2E-01 | AA747535.1 | EST_HUMAN | nx85c01.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1269024 3' |
| 6785 | 19940 | 33338 | 1.18 | 1.2E-01 | BF347985.1 | EST_HUMAN | 602023112F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4158386 5' |
| 7154 | 20288 | 33731 | 0.64 | 1.2E-01 | H47799.1 | EST_HUMAN | yp80f04.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:193759 5' |
| 7154 | 20288 | 33732 | 0.64 | 1.2E-01 | H47799.1 | EST_HUMAN | yp80f04.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:193759 5' |
| 7772 | 20829 | 34320 | 0.62 | 1.2E-01 | AJ271741.1 | NT | Homo sapiens partial ILF3 gene for interleukin enhancer binding factor 3 (alternative transcripts drbp76, drbp76 gamma, drbp76 alpha and ILF3) |
| 8076 | 21158 |  | 1.13 | 1.2E-01 | BE007072.1 | EST_HUMAN | PM3-BN0137-290300-002-f09 BN0137 Homo sapiens cDNA |
| 8149 | 21231 | 34751 | 2.45 | 1.2E-01 | AI913753.1 | EST_HUMAN | wc99g03.x1 NCI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:2326804 3' similar to SW:GST2_HUMAN Q99735 MICROSOMAL GLUTATHIONE S-TRANSFERASE II ; |
| 8197 | 21279 | 34801 | 0.64 | 1.2E-01 | Q02369 | SWISSPROT | NADH-UBIQUINONE OXIDOREDUCTASE B22 SUBUNIT (COMPLEX I-B22) (CI-B22) |
| 8504 | 21585 | 35119 | 0.66 | 1.2E-01 | AI832681.1 | EST_HUMAN | at71b10.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2377435 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8590 | 21671 | | 10.76 | 1.2E-01 | AW083652.1 | EST_HUMAN | xc49d07.x1 NCI_CGAP_Eso2 Homo sapiens cDNA clone IMAGE:2587597 3' similar to gb:M13452 LAMIN A (HUMAN); |
| 8611 | 21691 | | 3.76 | 1.2E-01 | AF053772.1 | NT | Staphylococcus aureus plasmid pSK23 putative recombinase Sin (sin) gene, partial cds; and transcriptional regulator QacR (qacR) and multidrug efflux protein QacB (qacB) genes, complete cds |
| 8649 | 21729 | 35266 | 1.09 | 1.2E-01 | J03956.1 | NT | N.crassa vacuolar ATPase 57-Kd subunit (vma-2) gene, complete cds |
| 8649 | 21729 | 35267 | 1.09 | 1.2E-01 | J03956.1 | NT | N.crassa vacuolar ATPase 57-Kd subunit (vma-2) gene, complete cds |
| 8800 | 21879 | | 1.02 | 1.2E-01 | AJ271736.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 2/2 |
| 8887 | 21966 | | 1.44 | 1.2E-01 | U32714.1 | NT | Haemophilus influenzae Rd section 29 of 163 of the complete genome |
| 8920 | 21999 | | 0.77 | 1.2E-01 | X15191.1 | NT | M.musculus DNA fragment of Apolipoprotein B gene |
| 9771 | 22767 | 36338 | 1.3 | 1.2E-01 | X77961.1 | NT | S.cerevisiae HXT5 gene |
| 10209 | 23245 | 36835 | 0.9 | 1.2E-01 | AV710857.1 | EST_HUMAN | AV710857 Cu Homo sapiens cDNA clone CuAAKE08 5' |
| 11125 | 24197 | | 2.55 | 1.2E-01 | D26184.1 | NT | Yeast MPT5 gene for suppressor protein, complete cds |
| 11320 | 24383 | | 3.03 | 1.2E-01 | BE962324.2 | EST_HUMAN | 601655578R1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3846283 3' |
| 11414 | 24475 | | 1.73 | 1.2E-01 | BF314481.1 | EST_HUMAN | 601900763F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4130103 5' |
| 11533 | 24589 | 38264 | 2.78 | 1.2E-01 | AF190493.1 | NT | Homo sapiens dynein intermediate chain DNAI1 (DNAI1) gene, exon 17 |
| 11593 | 24646 | 38329 | 1.72 | 1.2E-01 | R40249.1 | EST_HUMAN | yf80c02.s1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:28880 3' |
| 11798 | 24788 | | 2.47 | 1.2E-01 | M65109.1 | NT | Rabbit glycogen-associated protein phosphatase regulatory subunit (RG1) mRNA, complete cds |
| 12161 | 25128 | | 2.09 | 1.2E-01 | AV658033.1 | EST_HUMAN | AV658033 GLC Homo sapiens cDNA clone GLCFIB12 3' |
| 12522 | 25355 | | 4.37 | 1.2E-01 | AJ271736.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 2/2 |
| 12614 | 26126 | 31544 | 2 | 1.2E-01 | Q04912 | SWISSPROT | MACROPHAGE-STIMULATING PROTEIN RECEPTOR PRECURSOR (MSP RECEPTOR) (P185-RON) (CDW136) (CD136 ANTIGEN) |
| 12732 | 25486 | | 1.65 | 1.2E-01 | AF188892.1 | NT | Drosophila melanogaster strain Oregon R potential RNA-binding protein gene, complete cds; and syntaxin gene, partial cds |
| 12734 | 13753 | | 18.32 | 1.2E-01 | AF039442.1 | NT | Homo sapiens colon cancer antigen NY-CO-45 mRNA, partial cds |
| 12863 | 25574 | | 1.4 | 1.2E-01 | X63981.1 | NT | R.norvegicus NF68 gene for 68kDa neurofilament |
| 12968 | 25629 | 31981 | 4.89 | 1.2E-01 | AI299903.1 | EST_HUMAN | qn20g05.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1898840 3' |
| 12992 | 25644 | | 3.46 | 1.2E-01 | L10187.1 | NT | Xenopus laevis integrin alpha 3 subunit mRNA, partial cds |
| 12997 | 26050 | | 6.44 | 1.2E-01 | O96433 | SWISSPROT | CYCLIN T |
| 13031 | 25679 | 31960 | 1.47 | 1.2E-01 | AE004428.1 | NT | Vibrio cholerae chromosome II, section 85 of 93 of the complete chromosome |
| 13221 | 25795 | | 1.23 | 1.2E-01 | AF090141.1 | NT | Chryseobacterium meningosepticum GOB-1 carbapenemase gene, complete cds |
| 578 | 13770 | 26792 | 1.56 | 1.1E-01 | AI561003.1 | EST_HUMAN | tn18d08.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2167983 3' |
| 630 | 13815 | 26838 | 1.33 | 1.1E-01 | AA569006.1 | EST_HUMAN | nm08g11.s1 NCI_CGAP_Co10 Homo sapiens cDNA clone IMAGE:1059620 3' similar to gb:X06985_rna1 HEME OXYGENASE 1 (HUMAN); |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1079 | 14245 | 27302 | 1.61 | 1.1E-01 | BF697308.1 | EST_HUMAN | 602129847F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4286771 5' |
| 1109 | 14274 | | 1.65 | 1.1E-01 | AL161560.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 60 |
| 1185 | 16031 | 27405 | 3.67 | 1.1E-01 | AW972158.1 | EST_HUMAN | EST384142 MAGE resequences, MAGL Homo sapiens cDNA |
| 1278 | 14435 | 27505 | 1.88 | 1.1E-01 | D64004.1 | NT | Synechocystis sp. PCC6803 complete genome, 23/27, 2868767-3002965 |
| 1549 | 14701 | 27780 | 2.75 | 1.1E-01 | AU140363.1 | EST_HUMAN | AU140363 PLACE2 Homo sapiens cDNA clone PLACE2000403 5' |
| 2255 | 15388 | | 1.73 | 1.1E-01 | AJ006701.1 | NT | Homo sapiens mRNA for putative serine/threonine protein kinase, partial |
| 2388 | 15519 | | 2.02 | 1.1E-01 | 6755215 | NT | Mus musculus pre T-cell antigen receptor alpha (Ptcra), mRNA |
| 2603 | 15999 | | 1.08 | 1.1E-01 | 6978676 | NT | Rattus norvegicus Procollagen II alpha 1 (Col2a1), mRNA |
| 2633 | 15756 | | 1.27 | 1.1E-01 | AW821909.1 | EST_HUMAN | RC0-ST0379-210100-032-g04 ST0379 Homo sapiens cDNA |
| 2917 | 16095 | 29107 | 0.89 | 1.1E-01 | S82418.1 | NT | interleukin-12 p35 subunit [mice, Genomic, 700 nt, segment 4 of 6] |
| 3098 | 16274 | 29288 | 0.81 | 1.1E-01 | F03265.1 | EST_HUMAN | HSC1RF022 normalized infant brain cDNA Homo sapiens cDNA clone c-1rf02 3' |
| 3422 | 16591 | | 1.56 | 1.1E-01 | 6753231 | NT | Mus musculus calcium channel, voltage-dependent, T type, alpha 1G subunit (Cacna1g), mRNA |
| 3508 | 16676 | 29686 | 2.09 | 1.1E-01 | BE393186.1 | EST_HUMAN | 601308679F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3627066 5' |
| 3540 | 16705 | 29716 | 1.47 | 1.1E-01 | X62135.1 | NT | C.reinhardtii nuclear gene on linkage group XIX |
| 3580 | 16746 | 29763 | 0.71 | 1.1E-01 | R96946.1 | EST_HUMAN | yq62g08.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:200414 3' similar to contains Alu repetitive element; |
| 3673 | 16836 | 29846 | 0.7 | 1.1E-01 | Y07695.1 | NT | A.immersus gene for transposase |
| 3791 | 16952 | | 0.96 | 1.1E-01 | P97384 | SWISSPROT | ANNEXIN XI (CALCYCLIN-ASSOCIATED ANNEXIN 50) (CAP-50) |
| 3800 | 16961 | 29965 | 1.28 | 1.1E-01 | X52708.1 | NT | G.gallus gene encoding non-histone chromosomal protein HMG-14b, exons 4 and 5 |
| 4226 | 17374 | 30359 | 1.2 | 1.1E-01 | AW819412.1 | EST_HUMAN | MR3-ST0290-290100-025-g07 ST0290 Homo sapiens cDNA |
| 4226 | 17374 | 30360 | 1.2 | 1.1E-01 | AW819412.1 | EST_HUMAN | MR3-ST0290-290100-025-g07 ST0290 Homo sapiens cDNA |
| 4233 | 17380 | | 0.83 | 1.1E-01 | AF030001.1 | NT | Mus musculus major histocompatibility locus class III region:butyrophilin-like protein gene, partial cds; Notch4, PBX2, RAGE, lysophatidic acid acyl transferase-alpha, palmitoyl-protein thioesterase 2 (PPT2), CREB-RP, and tenascin X (TNX) genes, comple> |
| 4367 | 17510 | | 11.45 | 1.1E-01 | AF157066.1 | NT | Drosophila melanogaster klarsicht protein (klar) mRNA, complete cds |
| 4401 | 17544 | 30528 | 0.76 | 1.1E-01 | AW802056.1 | EST_HUMAN | IL5-UM0070-020500-068-a08 UM0070 Homo sapiens cDNA |
| 4762 | 17897 | 30877 | 0.92 | 1.1E-01 | S44957.1 | NT | Tapa-1=integral membrane protein TAPA-1 [mice, B cell lymphoma line 38C13, Genomic, 1973 nt, segment 1 of 7] |
| 4953 | 18083 | 31059 | 1.23 | 1.1E-01 | Y07695.1 | NT | A.immersus gene for transposase |
| 5134 | 17380 | | 0.75 | 1.1E-01 | AF030001.1 | NT | Mus musculus major histocompatibility locus class III region:butyrophilin-like protein gene, partial cds; Notch4, PBX2, RAGE, lysophatidic acid acyl transferase-alpha, palmitoyl-protein thioesterase 2 (PPT2), CREB-RP, and tenascin X (TNX) genes, comple> |
| 5787 | 18979 | | 2.59 | 1.1E-01 | AA747216.1 | EST_HUMAN | nx76a03.s1 NCI_CGAP_Ew1 Homo sapiens cDNA clone IMAGE:1268140 similar to contains Alu repetitive element;contains element MER35 repetitive element ; |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5867 | 19047 | 32353 | 1.32 | 1.1E-01 | AF020927.1 | NT | 6 Homo sapiens diacylglycerol kinase 3 (DAGK3) gene, exon 6 |
| 5894 | 19082 | 32393 | 0.87 | 1.1E-01 | AL110985.1 | NT | Botrytis cinerea strain T4 cDNA library under conditions of nitrogen deprivation |
| 5927 | 19113 | 32425 | 0.96 | 1.1E-01 | BF339519.1 | EST_HUMAN | 602039176F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4186818 5' |
| 5927 | 19113 | 32426 | 0.96 | 1.1E-01 | BF339519.1 | EST_HUMAN | 602039176F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4186818 5' |
| 5958 | 19144 | 32459 | 1.79 | 1.1E-01 | X68851.1 | NT | S.pombe ste8 gene encoding protein kinase |
| 5992 | 19177 | 32498 | 5.15 | 1.1E-01 | M86533.1 | NT | Providencia rettgeri penicillin G amidase gene |
| 6150 | 19326 | 32671 | 1.66 | 1.1E-01 | AJ007973.1 | NT | Homo sapiens LGMD2B gene |
| 6171 | 19347 | 32693 | 1.37 | 1.1E-01 | BE769152.1 | EST_HUMAN | PM3-FT0024-130600-004-f12 FT0024 Homo sapiens cDNA |
| 6191 | 19367 | 32716 | 7.73 | 1.1E-01 | AW853699.1 | EST_HUMAN | RC3-CT0254-280999-011-a01 CT0254 Homo sapiens cDNA |
| 6554 | 19716 | 33092 | 0.61 | 1.1E-01 | AL163282.2 | NT | Homo sapiens chromosome 21 segment HS21C082 |
| 6562 | 19724 | 33102 | 1.52 | 1.1E-01 | AF035746.1 | EST_HUMAN | AF035746 Human salivary gland cell line HSG Homo sapiens cDNA clone RL43 |
| 6602 | 19762 | 33150 | 0.84 | 1.1E-01 | AI216307.1 | EST_HUMAN | qg76d06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1841099 3' |
| 6742 | 19898 | 33289 | 3.68 | 1.1E-01 | O69635 | SWISSPROT | ACETYL-COENZYME A SYNTHETASE (ACETATE--COA LIGASE) (ACYL-ACTIVATING ENZYME) |
| 6843 | 19996 | | 2.73 | 1.1E-01 | AF032922.1 | NT | Homo sapiens syntaxin 4 binding protein UNC-18c (UNC-18c) mRNA, complete cds |
| 6934 | 20249 | 33684 | 2.74 | 1.1E-01 | 11432372 | NT | Homo sapiens phosphatidylinositol glycan, class B (PIGB), mRNA |
| 7193 | 20058 | 33468 | 0.74 | 1.1E-01 | AE002155.1 | NT | Ureaplasma urealyticum section 56 of 59 of the complete genome |
| 7193 | 20058 | 33469 | 0.74 | 1.1E-01 | AE002155.1 | NT | Ureaplasma urealyticum section 56 of 59 of the complete genome |
| 7337 | 26217 | | 1.01 | 1.1E-01 | BF382758.1 | EST_HUMAN | 601816524F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4050653 5' |
| 7456 | 25845 | 34007 | 0.98 | 1.1E-01 | AP000006.1 | NT | Pyrococcus horikoshii OT3 genomic DNA, 1166001-1485000 nt. position (6/7) |
| 7706 | 20771 | 34255 | 7.51 | 1.1E-01 | BF684628.1 | EST_HUMAN | 602140976F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4302019 5' |
| 7706 | 20771 | 34256 | 7.61 | 1.1E-01 | BF684628.1 | EST_HUMAN | 602140976F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4302019 5' |
| 7833 | 20888 | 34391 | 2.16 | 1.1E-01 | P41067 | SWISSPROT | TRAB PROTEIN |
| 7872 | 20926 | | 0.64 | 1.1E-01 | Z14098.1 | NT | B.subtilis gene encoding hypothetical polyketide synthase |
| 7873 | 20927 | 34433 | 3.06 | 1.1E-01 | AA788784.1 | EST_HUMAN | ah31b06.s1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone 1240403 3' similar to gb:J03483 CHROMOGRANIN A PRECURSOR (HUMAN); |
| 8155 | 21237 | 34758 | 1.58 | 1.1E-01 | U67492.1 | NT | Methanococcus jannaschii section 34 of 150 of the complete genome |
| 8403 | 21484 | 35012 | 1.55 | 1.1E-01 | AA493574.1 | EST_HUMAN | nh04g10.s1 NCI_CGAP_Thy1 Homo sapiens cDNA clone IMAGE:943362 |
| 8403 | 21484 | 35013 | 1.55 | 1.1E-01 | AA493574.1 | EST_HUMAN | nh04g10.s1 NCI_CGAP_Thy1 Homo sapiens cDNA clone IMAGE:943362 |
| 8449 | 21630 | 35059 | 1.26 | 1.1E-01 | X91233.1 | NT | H.sapiens IL15 gene |
| 8489 | 21570 | | 0.94 | 1.1E-01 | AW817918.1 | EST_HUMAN | PM1-ST0270-080200-001-f09 ST0270 Homo sapiens cDNA |
| 8546 | 21627 | 35165 | 2.31 | 1.1E-01 | AL134349.1 | EST_HUMAN | DKFZp547P194_r1 547 (synonym: hfbr1) Homo sapiens cDNA clone DKFZp547P194 5' |
| 9018 | 22097 | 35637 | 5.67 | 1.1E-01 | U02482.1 | NT | Pediococcus acidilactici H plasmid pSMB74 pediocin AcH production (pap) gene cluster papA, papB, papC and papD genes, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9113 | 22192 | 35737 | 1.04 | 1.1E-01 | AI807474.1 | EST_HUMAN | wf48c01.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2358816 3' similar to contains Alu repetitive element; |
| 9210 | 22288 | 35830 | 0.5 | 1.1E-01 | AF050081.1 | NT | Homo sapiens C16orf3 large protein mRNA, complete cds |
| 9243 | 22320 | 35863 | 2.25 | 1.1E-01 | AA192153.1 | EST_HUMAN | zp93b12.r1 Stratagene muscle 937209 Homo sapiens cDNA clone IMAGE:627743 5' |
| 9243 | 22320 | 35864 | 2.25 | 1.1E-01 | AA192153.1 | EST_HUMAN | zp93b12.r1 Stratagene muscle 937209 Homo sapiens cDNA clone IMAGE:627743 5' |
| 9335 | 22411 | 35964 | 0.71 | 1.1E-01 | Y12727.1 | NT | P.furiosus partial dph5 gene and argF gene |
| 9366 | 22441 | 36001 | 2.76 | 1.1E-01 | T72675.1 | EST_HUMAN | yd19h03.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:108725 3' similar to gb:M81181 SODIUM/POTASSIUM-TRANSPORTING ATPASE BETA-2 (HUMAN); |
| 9392 | 22467 | | 0.63 | 1.1E-01 | BE893260.1 | EST_HUMAN | 601436972F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3922048 5' |
| 9622 | 22677 | | 0.99 | 1.1E-01 | BE142305.1 | EST_HUMAN | CM3-HT0142-271099-026-g11 HT0142 Homo sapiens cDNA |
| 9696 | 22745 | | 2.33 | 1.1E-01 | BF085149.1 | EST_HUMAN | MR2-GN0027-040900-005-a08 GN0027 Homo sapiens cDNA |
| 10114 | 23152 | | 0.77 | 1.1E-01 | AL161543.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 43 |
| 10410 | 23445 | | 1.23 | 1.1E-01 | R80590.1 | EST_HUMAN | yi06a00.s1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:147064 3' |
| 10544 | 23579 | 37188 | 1.29 | 1.1E-01 | U60529.1 | NT | Ceratitis capitata yoyo retrotransposon gag-like, pol-like and env-like genes, complete cds |
| 10914 | 23997 | 37631 | 1.38 | 1.1E-01 | AF245277.1 | NT | Dictyostelium discoideum kinesin Unc104/KIF1a homolog (Unc104) mRNA, complete cds |
| 11044 | 16274 | 29288 | 1.78 | 1.1E-01 | F03265.1 | EST_HUMAN | HSC1RF022 normalized infant brain cDNA Homo sapiens cDNA clone c-1rf02 3' |
| 11162 | 24233 | | 2.47 | 1.1E-01 | AF169032.1 | NT | Carassius auratus activin beta A precursor, mRNA, complete cds |
| 11300 | 24366 | 38007 | 3.11 | 1.1E-01 | R23708.1 | EST_HUMAN | yh35f12.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:131759 5' similar to contains Alu repetitive element;contains TAR1 repetitive element ; |
| 11483 | 24542 | 38212 | 2.6 | 1.1E-01 | Z11910.1 | NT | Z.mobilis tgt and lig genes encoding tRNA guanine transglycosylase and DNA ligase |
| 11483 | 24542 | 38213 | 2.6 | 1.1E-01 | Z11910.1 | NT | Z.mobilis tgt and lig genes encoding tRNA guanine transglycosylase and DNA ligase |
| 11510 | 24568 | 38245 | 1.69 | 1.1E-01 | BE902974.1 | EST_HUMAN | 601676924F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3959868 5' |
| 11586 | 24639 | 38319 | 3.21 | 1.1E-01 | P17437 | SWISSPROT | SKIN SECRETORY PROTEIN XP2 PRECURSOR (APEG PROTEIN) |
| 11971 | 24956 | | 1.33 | 1.1E-01 | AL161511.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 23 |
| 12378 | 25269 | | 3.78 | 1.1E-01 | BE767023.1 | EST_HUMAN | RC2-NT0112-120600-014-f03 NT0112 Homo sapiens cDNA |
| 12649 | 25910 | | 3.18 | 1.1E-01 | BE974556.1 | EST_HUMAN | 601680551R2 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3950604 3' |
| 13136 | 25738 | 31947 | 1.98 | 1.1E-01 | BF239753.1 | EST_HUMAN | 601906350F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4134085 5' |
| 1228 | 14388 | | 1.51 | 1.0E-01 | O62855 | SWISSPROT | DEOXYRIBONUCLEASE II PRECURSOR (DNASE II) (ACID DNASE) (LYSOSOMAL DNASE II) |
| 1301 | 14457 | 27523 | 2.18 | 1.0E-01 | AI985499.1 | EST_HUMAN | ws08d01.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2496577 3' similar to contains MER7.t3 MER7 repetitive element ; |
| 1423 | 14577 | 27650 | 2.3 | 1.0E-01 | AL161504.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 16 |
| 2558 | 15683 | 28808 | 1.01 | 1.0E-01 | AW451365.1 | EST_HUMAN | UI-H-BI3-alc-d-07-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2736420 3' |
| 3813 | 16973 | 29976 | 1.11 | 1.0E-01 | BF239818.1 | EST_HUMAN | 601906489F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4134071 5' |
| 4064 | 17220 | 30228 | 2.6 | 1.0E-01 | BF365703.1 | EST_HUMAN | QV2-NT0048-160800-316-e05 NT0048 Homo sapiens cDNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4527 | 17665 | 30651 | 1.44 | 1.0E-01 | AE002265.2 | NT | Chlamydophila pneumoniae AR39, section 91 of 94 of the complete genome |
| 4677 | 17812 | | 0.76 | 1.0E-01 | AI792349.1 | EST_HUMAN | an32c04.y5 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:1700358 5' |
| 4834 | 17967 | 30955 | 2.17 | 1.0E-01 | U50450.1 | NT | Drosophila melanogaster tyrosine kinase p45 isoform (fer) mRNA, complete cds |
| 5039 | 18167 | 31143 | 2.17 | 1.0E-01 | AW952344.1 | EST_HUMAN | EST364414 MAGE resequences, MAGB Homo sapiens cDNA |
| 5261 | 18380 | 31346 | 0.61 | 1.0E-01 | BE389100.1 | EST_HUMAN | 601286969F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3613552 5' |
| 5436 | 18636 | | 9.49 | 1.0E-01 | W86490.1 | EST_HUMAN | zh62h04.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:416695 3' |
| 5534 | 18731 | | 0.67 | 1.0E-01 | X54015.1 | NT | X.campestris genes for sensor and regulator protein |
| 6001 | 19186 | | 1.08 | 1.0E-01 | AK024472.1 | NT | Homo sapiens mRNA for FLJ00065 protein, partial cds |
| 6148 | 19325 | 32670 | 13.08 | 1.0E-01 | AF274875.1 | NT | Homo sapiens growth factor receptor-bound protein 7 (GRB7) gene, complete cds |
| 6465 | 19632 | 32993 | 0.9 | 1.0E-01 | AA481879.1 | EST_HUMAN | zv41g10.s1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:756258 3' similar to contains L1.t3 L1 repetitive element ; |
| 6479 | 19646 | 33008 | 0.72 | 1.0E-01 | AA406039.1 | EST_HUMAN | zu67c12.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:743062 3' |
| 7164 | 20297 | | 1.87 | 1.0E-01 | R23821.1 | EST_HUMAN | yh34h06.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:131675 5' similar to contains Alu repetitive element; |
| 7914 | 20965 | | 2.39 | 1.0E-01 | Y12488.1 | NT | M.musculus whn gene |
| 8118 | 21200 | 34721 | 0.69 | 1.0E-01 | AA861091.1 | EST_HUMAN | ak32g01.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1407696 3' similar to gb:M34182 CAMP-DEPENDENT PROTEIN KINASE, GAMMA-CATALYTIC SUBUNIT (HUMAN); |
| 8141 | 21223 | 34741 | 2.17 | 1.0E-01 | AF260225.1 | NT | Homo sapiens TESTIN 2 and TESTIN 3 genes, complete cds, alternatively spliced |
| 8141 | 21223 | 34742 | 2.17 | 1.0E-01 | AF260225.1 | NT | Homo sapiens TESTIN 2 and TESTIN 3 genes, complete cds, alternatively spliced |
| 8689 | 21769 | | 0.96 | 1.0E-01 | AW189797.1 | EST_HUMAN | xl09b01.x1 NCI_CGAP_Ut4 Homo sapiens cDNA clone IMAGE:2675689 3' similar to gb:X17206 40S RIBOSOMAL PROTEIN S4 (HUMAN);contains TAR1.t3 TAR1 repetitive element ; |
| 9387 | 22462 | 36026 | 1.12 | 1.0E-01 | AF102855.2 | NT | Rattus norvegicus synaptic SAPAP-interacting protein Synamon mRNA, complete cds |
| 9695 | 22744 | 36314 | 0.87 | 1.0E-01 | R44993.1 | EST_HUMAN | yg33h04.s1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:34549 3' |
| 9707 | 22756 | | 1.9 | 1.0E-01 | M76729.1 | NT | Human pro-alpha-1 (V) collagen mRNA, complete cds |
| 9750 | 22688 | | 3.15 | 1.0E-01 | AE001501.1 | NT | Helicobacter pylori, strain J99 section 62 of 132 of the complete genome |
| 9764 | 22761 | 36331 | 0.55 | 1.0E-01 | W01955.1 | EST_HUMAN | zc66c10.s1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:327282 3' |
| 10026 | 23064 | 36661 | 1.88 | 1.0E-01 | BF240154.1 | EST_HUMAN | 601905661F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4133487 5' |
| 10139 | 23177 | 36774 | 8.92 | 1.0E-01 | AB046799.1 | NT | Homo sapiens mRNA for KIAA1579 protein, partial cds |
| 10139 | 23177 | 36775 | 8.92 | 1.0E-01 | AB046799.1 | NT | Homo sapiens mRNA for KIAA1579 protein, partial cds |
| 10347 | 23382 | | 1.06 | 1.0E-01 | AW957425.1 | EST_HUMAN | EST369615 MAGE resequences, MAGE Homo sapiens cDNA |
| 10351 | 23386 | 36995 | 0.62 | 1.0E-01 | T51952.1 | EST_HUMAN | yb29a06.s1 Stratagene fetal spleen (#937205) Homo sapiens cDNA clone IMAGE:72562 3' similar to contains Alu repetitive element |
| 10537 | 23572 | 37179 | 1.27 | 1.0E-01 | BE792750.1 | EST_HUMAN | 601584604F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3939096 5' |
| 10894 | 23978 | | 1.77 | 1.0E-01 | AU159127.1 | EST_HUMAN | AU159127 THYRO1 Homo sapiens cDNA clone THYRO1000895 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11286 | 24352 | 37991 | 2.17 | 1.0E-01 | BF242946.1 | EST_HUMAN | 601877703F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4106089 5' |
| 11286 | 24352 | 37992 | 2.17 | 1.0E-01 | BF242946.1 | EST_HUMAN | 601877703F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4106089 5' |
| 11685 | 24684 | 38374 | 3.64 | 1.0E-01 | BE790543.1 | EST_HUMAN | 601582558F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3936734 5' |
| 11814 | 24803 | | 1.75 | 1.0E-01 | AP000400.1 | NT | Escherichia coli O157:H7 genomic DNA, prophage (Sakai-VT1) inserted region, substrain:RIMD 0509952 |
| 12364 | 25633 | | 1.73 | 1.0E-01 | BE537719.1 | EST_HUMAN | 601065554F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3451933 5' |
| 12609 | 25408 | | 1.73 | 1.0E-01 | 7662165 | NT | Homo sapiens KIAA0514 gene product (KIAA0514), mRNA |
| 12939 | 26119 | | 3.11 | 1.0E-01 | U52691.1 | NT | Gonyaulax polyedra putative type-1 serine/threonine phosphatase (PP1) mRNA, complete cds |
| 12973 | 25633 | | 1.8 | 1.0E-01 | BE537719.1 | EST_HUMAN | 601065554F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3451933 5' |
| 13045 | 26085 | | 25.82 | 1.0E-01 | U68834.1 | NT | Saccharomyces cerevisiae suppressor of ABF1 (SAB2) gene, complete cds |
| 13117 | 25729 | | 6.58 | 1.0E-01 | AP001507.1 | NT | Bacillus halodurans genomic DNA, section 1/14 |
| 13219 | 26106 | | 1.45 | 1.0E-01 | AE002138.1 | NT | Ureaplasma urealyticum section 39 of 59 of the complete genome |
| 2839 | 15953 | 29060 | 0.96 | 9.9E-02 | AF274008.1 | NT | Drosophila melanogaster cAMP-dependent protein kinase type II regulatory subunit (pka-RII) mRNA, complete cds |
| 2847 | 15961 | 29070 | 0.94 | 9.9E-02 | BE545554.1 | EST_HUMAN | 601070219F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3456365 5' |
| 2847 | 15961 | 29071 | 0.94 | 9.9E-02 | BE545554.1 | EST_HUMAN | 601070219F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3456365 5' |
| 3340 | 16513 | 29528 | 1.31 | 9.9E-02 | AF099810.1 | NT | Homo sapiens neurexin III-alpha gene, partial cds |
| 7110 | 18536 | 31492 | 8.96 | 9.9E-02 | D83710.1 | NT | Aspergillus terreus BSD mRNA for blasticidin S deaminase, complete cds |
| 8099 | 21181 | 34699 | 0.69 | 9.9E-02 | AW103088.1 | EST_HUMAN | xd43c09.x1 NCI_CGAP_Ov23 Homo sapiens cDNA clone IMAGE:2596528 3' similar to contains Alu repetitive element;contains element MIR MIR repetitive element ; |
| 8099 | 21181 | 34700 | 0.69 | 9.9E-02 | AW103088.1 | EST_HUMAN | xd43c09.x1 NCI_CGAP_Ov23 Homo sapiens cDNA clone IMAGE:2596528 3' similar to contains Alu repetitive element;contains element MIR MIR repetitive element ; |
| 9457 | 22573 | 36139 | 1.35 | 9.9E-02 | 6755111 | NT | Mus musculus phospholipid transfer protein (Pltp), mRNA |
| 12132 | 25112 | 38816 | 3.67 | 9.9E-02 | D86980.1 | NT | Human mRNA for KIAA0227 gene, partial cds |
| 577 | 13769 | | 2.18 | 9.8E-02 | X56338.1 | NT | O.sativa RAmy3C gene for alpha-amylase |
| 3214 | 16388 | 29398 | 3.66 | 9.8E-02 | AF184274.1 | NT | Daucus carota leucoanthocyanidin dioxygenase 2 (LDOX) mRNA, LDOX-2 allele, complete cds |
| 4339 | 17482 | 30463 | 9.93 | 9.8E-02 | AF257329.1 | NT | Leptosphaeria maculans beta-tubulin mRNA, complete cds |
| 4339 | 17482 | 30464 | 9.93 | 9.8E-02 | AF257329.1 | NT | Leptosphaeria maculans beta-tubulin mRNA, complete cds |
| 7651 | 20719 | | 0.98 | 9.8E-02 | X54133.1 | NT | Human HPTP delta mRNA for protein tyrosine phosphatase delta |
| 9454 | 22570 | | 1.16 | 9.8E-02 | M61943.1 | NT | Human laminin B1 chain gene, exon 26 |
| 11747 | 23933 | 37559 | 1.73 | 9.8E-02 | BF037421.1 | EST_HUMAN | 601460793F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3864287 5' |
| 12332 | 25240 | | 1.29 | 9.8E-02 | 8393751 | NT | Rattus norvegicus microtubule-associated protein tau (Mapt), mRNA |
| 1381 | 14536 | 27611 | 1.92 | 9.7E-02 | AB005808.1 | NT | Aloe arborescens mRNA for NADP-malic enzyme, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1617 | 14769 | | 1.01 | 9.7E-02 | 4503710 | NT | Homo sapiens fibroblast growth factor receptor 3 (achondroplasia, thanatophoric dwarfism) (FGFR3) mRNA |
| 2335 | 15466 | 28601 | 2.56 | 9.7E-02 | BE168660.1 | EST_HUMAN | QV1-HT0516-070300-095-a04 HT0516 Homo sapiens cDNA |
| 4091 | 17246 | | 4.05 | 9.7E-02 | Q99795 | SWISSPROT | CELL SURFACE A33 ANTIGEN PRECURSOR (GLYCOPROTEIN A33) |
| 5461 | 18661 | 31639 | 0.59 | 9.7E-02 | AF099189.1 | NT | Caulobacter crescentus thymydilate kinase (tmk) and DNA polymerase III delta prime subunit (dnaC) genes, complete cds |
| 5461 | 18661 | 31640 | 0.59 | 9.7E-02 | AF099189.1 | NT | Caulobacter crescentus thymydilate kinase (tmk) and DNA polymerase III delta prime subunit (dnaC) genes, complete cds |
| 6138 | 19316 | 32657 | 1.39 | 9.7E-02 | AW954476.1 | EST_HUMAN | EST366546 MAGE resequences, MAGC Homo sapiens cDNA |
| 7450 | 20527 | 34000 | 3.05 | 9.7E-02 | Z99119.1 | NT | Bacillus subtilis complete genome (section 16 of 21): from 2997771 to 3213410 |
| 8171 | 21253 | 34774 | 1.54 | 9.7E-02 | N22798.1 | EST_HUMAN | yw41c03.s1 Weizmann Olfactory Epithelium Homo sapiens cDNA clone IMAGE:254788 3' |
| 8171 | 21253 | 34775 | 1.54 | 9.7E-02 | N22798.1 | EST_HUMAN | yw41c03.s1 Weizmann Olfactory Epithelium Homo sapiens cDNA clone IMAGE:254788 3' |
| 9050 | 22129 | 35673 | 1.49 | 9.7E-02 | AI953984.1 | EST_HUMAN | wx78b06.x1 NCI_CGAP_Ov38 Homo sapiens cDNA clone IMAGE:2549747 3' similar to gb:X52851_rna1 PEPTIDYL-PROLYL CIS-TRANS ISOMERASE A (HUMAN); |
| 11472 | 24531 | | 1.72 | 9.7E-02 | U58337.1 | NT | Mus musculus ligatin (Lgtn) mRNA, partial cds |
| 2073 | 15213 | 28330 | 1.33 | 9.6E-02 | AI080721.1 | EST_HUMAN | oz47d11.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1678485 3' |
| 2073 | 15213 | 28331 | 1.33 | 9.6E-02 | AI080721.1 | EST_HUMAN | oz47d11.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1678485 3' |
| 4464 | 17604 | 30582 | 6.67 | 9.6E-02 | Z32686.2 | NT | Proteus mirabilis fimbrial operon, strain HI4320 |
| 5117 | 18244 | 31209 | 0.95 | 9.6E-02 | AW966230.1 | EST_HUMAN | EST378303 MAGE resequences, MAGI Homo sapiens cDNA |
| 6231 | 19406 | | 2.75 | 9.6E-02 | BE910039.1 | EST_HUMAN | 601498088F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3900165 5' |
| 8017 | 21068 | | 0.79 | 9.6E-02 | 6678753 | NT | Mus musculus lymphocyte antigen 78 (Ly78), mRNA |
| 8571 | 21652 | | 0.65 | 9.6E-02 | AU137084.1 | EST_HUMAN | AU137084 PLACE1 Homo sapiens cDNA clone PLACE1005740 5' |
| 9744 | 22808 | 36386 | 1.49 | 9.6E-02 | AV687898.1 | EST_HUMAN | AV687898 GKC Homo sapiens cDNA clone GKCAAH02 5' |
| 10076 | 23114 | | 1.34 | 9.6E-02 | BE894895.1 | EST_HUMAN | 601434080F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3919363 5' |
| 10245 | 23280 | 36876 | 1.04 | 9.6E-02 | AJ243211.1 | NT | Homo sapiens DMBT1 candidate tumour suppressor gene, exons 1 to 55 |
| 10245 | 23280 | 36877 | 1.04 | 9.6E-02 | AJ243211.1 | NT | Homo sapiens DMBT1 candidate tumour suppressor gene, exons 1 to 55 |
| 10325 | 23360 | 36970 | 0.62 | 9.6E-02 | BF677270.1 | EST_HUMAN | 602086769F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4250969 5' |
| 10354 | 23389 | 36998 | 1.56 | 9.6E-02 | AB013985.1 | NT | Antirrhinum majus transposon Tam3 pseudogene for transposase (in S-5 copy) |
| 10354 | 23389 | 36999 | 1.56 | 9.6E-02 | AB013985.1 | NT | Antirrhinum majus transposon Tam3 pseudogene for transposase (in S-5 copy) |
| 10465 | 23500 | 37113 | 3.43 | 9.6E-02 | P08174 | SWISSPROT | COMPLEMENT DECAY-ACCELERATING FACTOR PRECURSOR (CD55) |
| 10981 | 24060 | 37694 | 5.27 | 9.6E-02 | Z79702.1 | NT | Mycobacterium tuberculosis H37Rv complete genome; segment 102/162 |
| 12019 | 25003 | 38704 | 2.8 | 9.6E-02 | AA625755.1 | EST_HUMAN | zu91g01.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:745392 3' |
| 13015 | 25658 | | 1.7 | 9.6E-02 | H14599.1 | EST_HUMAN | ym19h03.s1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:48653 3' |

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## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 13143 | 25743 | 31949 | 1.41 | 9.6E-02 | AJ295624.1 | NT | Gallus gallus ALPHA 10 nAChR gene for alpha 10 subunit of nicotinic acetylcholine receptor, exons 1-5 |
| 4217 | 17366 | 30355 | 2.16 | 9.5E-02 | AW992395.1 | EST_HUMAN | CM2-BN0023-050200-087-f12 BN0023 Homo sapiens cDNA |
| 5782 | 18974 | 32280 | 0.88 | 9.5E-02 | P51854 | SWISSPROT | TRANSKETOLASE 2 (TK 2) (TRANSKETOLASE RELATED PROTEIN) |
| 7455 | 20532 | 34006 | 4.64 | 9.5E-02 | AB003473.1 | NT | Trimeresurus flavoviridis DNA for phospholipase A2 inhibitor, complete cds |
| 7741 | 20802 | 34292 | 7.77 | 9.5E-02 | AL161538.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 38 |
| 7876 | 18974 | 32280 | 0.81 | 9.5E-02 | P51854 | SWISSPROT | TRANSKETOLASE 2 (TK 2) (TRANSKETOLASE RELATED PROTEIN) |
| 8064 | 21146 | 34666 | 2.85 | 9.5E-02 | BF035861.1 | EST_HUMAN | 601453642F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3857243 5' |
| 8064 | 21146 | 34667 | 2.85 | 9.5E-02 | BF035861.1 | EST_HUMAN | 601453642F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3857243 5' |
| 10918 | 24001 | 37634 | 4.09 | 9.5E-02 | BF035861.1 | EST_HUMAN | 601453642F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3857243 5' |
| 10918 | 24001 | 37635 | 4.09 | 9.5E-02 | BF035861.1 | EST_HUMAN | 601453642F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3857243 5' |
| 12104 | 25084 | | 1.82 | 9.5E-02 | 7657416 | NT | Mus musculus odd Oz/ten-m homolog 3 (Drosophila) (Odz3), mRNA |
| 13097 | 25715 | | 2.81 | 9.5E-02 | AF272732.1 | NT | Arabidopsis thaliana putative transcription factor (MYB110) mRNA, complete cds |
| 1880 | 15024 | 28130 | 3.95 | 9.4E-02 | BF671063.1 | EST_HUMAN | 602150882F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4291917 5' |
| 3985 | 17142 | 30147 | 4.64 | 9.4E-02 | Z33059.1 | NT | M.capricolum DNA for CONTIG MC073 |
| 6447 | 19614 | 32978 | 0.95 | 9.4E-02 | AF097363.1 | NT | Triticum aestivum heat shock protein 101 (Hsp101a) mRNA, complete cds |
| 7769 | 20827 | 34318 | 0.68 | 9.4E-02 | L78833.1 | NT | Human BRCA1, Rho7 and vatI genes, complete cds, and ipf35 gene, partial cds |
| 8799 | 21878 | | 2.5 | 9.4E-02 | Z46863.1 | NT | Acinetobacter sp. cysD, cobQ, sodM, lysS, rubA, rubB, estB, oxyR, ppk, mtgA, ORF2 and ORF3 genes |
| 11174 | 20827 | 34318 | 1.9 | 9.4E-02 | L78833.1 | NT | Human BRCA1, Rho7 and vatI genes, complete cds, and ipf35 gene, partial cds |
| 12214 | 26011 | | 7.72 | 9.4E-02 | U31815.1 | NT | Rattus norvegicus calcium channel alpha-1C subunit (ROB2) mRNA, partial cds |
| 13198 | 25780 | 31936 | 4.84 | 9.4E-02 | U27699.1 | NT | Human pephBGT-1 betaine-GABA transporter mRNA, complete cds |
| 3054 | 16230 | | 2.37 | 9.3E-02 | 4809280 | NT | Homo sapiens BAI1-associated protein 3 (BAIAP3) mRNA |
| 3094 | 16270 | | 8.03 | 9.3E-02 | 6912525 | NT | Homo sapiens nasopharyngeal epithelium specific protein 1 (NESG1), mRNA |
| 3329 | 16502 | 29521 | 2.17 | 9.3E-02 | BF575511.1 | EST_HUMAN | 602133086F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4288269 5' |
| 4268 | 17413 | 30400 | 3.17 | 9.3E-02 | BE391943.1 | EST_HUMAN | 601286082F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3607653 5' |
| 4268 | 17413 | 30401 | 3.17 | 9.3E-02 | BE391943.1 | EST_HUMAN | 601286082F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3607653 5' |
| 4857 | 17990 | | 1.82 | 9.3E-02 | AV732224.1 | EST_HUMAN | AV732224 HTF Homo sapiens cDNA clone HTFAUA06 5' |
| 5779 | 18971 | | 0.67 | 9.3E-02 | AP001507.1 | NT | Bacillus halodurans genomic DNA, section 1/14 |
| 8442 | 21523 | 35052 | 0.56 | 9.3E-02 | AW566007.1 | EST_HUMAN | EST69 Human Fetal Brain MATCHMAKER cDNA Library Homo sapiens cDNA |
| 8324 | 22400 | | 0.6 | 9.3E-02 | AL113179.1 | NT | *Botrytis cinerea strain* T4 cDNA library under conditions of nitrogen deprivation |
| 8911 | 22951 | 36537 | 2.3 | 9.3E-02 | BE962631.2 | EST_HUMAN | 601655988R1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3855981 3' |
| 10394 | 23429 | 37035 | 3.6 | 9.3E-02 | Q15034 | SWISSPROT | HYPOTHETICAL PROTEIN KIAA0032 |
| 10394 | 23429 | 37036 | 3.6 | 9.3E-02 | Q15034 | SWISSPROT | HYPOTHETICAL PROTEIN KIAA0032 |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10526 | 23561 | | 3.96 | 9.3E-02 | AW206117.1 | EST_HUMAN | UI-H-BI1-afx-h-05-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2723553 3' |
| 12485 | 25933 | | 2.08 | 9.3E-02 | AJ249850.1 | NT | Photobacterium damselae subsp. damselae partial gyrB gene for DNA gyrase B subunit |
| 12805 | 25964 | | 22.03 | 9.3E-02 | AW468850.1 | EST_HUMAN | hd28h12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2910887 3' |
| 13139 | 26010 | | 2.87 | 9.3E-02 | AF100956.1 | NT | Mus musculus major histocompatibility locus class II region; Fas-binding protein Daxx (DAXX) gene, partial cds; Bing1 (BING1), tapasin (tapasin), RalGDS-like factor (RLF), KE2 (KE2), BING4 (BING4), beta1, 3-galactosyl transferase (beta1,3-galactosyl tr> |
| 238 | 13460 | 26486 | 4.72 | 9.2E-02 | U60315.1 | NT | Molluscum contagiosum virus subtype 1, complete genome |
| 238 | 13460 | 26487 | 4.72 | 9.2E-02 | U60315.1 | NT | Molluscum contagiosum virus subtype 1, complete genome |
| 238 | 13460 | 26488 | 4.72 | 9.2E-02 | U60315.1 | NT | Molluscum contagiosum virus subtype 1, complete genome |
| 2302 | 15434 | | 3.08 | 9.2E-02 | R54156.1 | EST_HUMAN | yg98f07.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:41618 5' |
| 3247 | 16421 | 29437 | 3.7 | 9.2E-02 | Q28631 | SWISSPROT | MAJOR EPIDIDYMIS-SPECIFIC PROTEIN E4 (EPIDIDYMAL PROTEIN BE-20) |
| 3379 | 16551 | 29564 | 1.01 | 9.2E-02 | AA634354.1 | EST_HUMAN | nf79e01.s1 NCI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:926136 3' |
| 3676 | 16839 | | 1.14 | 9.2E-02 | 6755215 | NT | Mus musculus pre T-cell antigen receptor alpha (Ptcra), mRNA |
| 4353 | 17496 | | 1.05 | 9.2E-02 | U92048.1 | NT | Human herpesvirus 1 strain KOS-63, latency-associated transcript, promoter region |
| 4425 | 17565 | | 0.88 | 9.2E-02 | BE299722.1 | EST_HUMAN | 600944365F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2960176 5' |
| 4760 | 17895 | 30876 | 3.44 | 9.2E-02 | X96402.1 | NT | G.gallus Mia-CK gene |
| 8198 | 21280 | 34802 | 1.82 | 9.2E-02 | T49920.1 | EST_HUMAN | ya99c09.r1 Stratagene placenta (#937225) Homo sapiens cDNA clone IMAGE:69808 5' similar to similar to gb:X56009 GUANINE NUCLEOTIDE-BINDING PROTEIN G(S), ALPHA SUBUNIT (HUMAN) |
| 8370 | 21451 | 34974 | 2.18 | 9.2E-02 | X95256.1 | NT | H.vulgare xylose isomerase gene |
| 13120 | 26201 | | 1.2 | 9.2E-02 | 11466872 | NT | Podospora anserina mitochondrion, complete genome |
| 436 | 13236 | 26237 | 2.23 | 9.1E-02 | X77665.1 | NT | O. cuniculus k12 keratin gene |
| 3760 | 16921 | | 0.97 | 9.1E-02 | AW372569.1 | EST_HUMAN | PM2-BT0349-161299-001-f02 BT0349 Homo sapiens cDNA |
| 4607 | 17744 | 30723 | 1.78 | 9.1E-02 | AL161554.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 54 |
| 6848 | 19038 | 32346 | 1.23 | 9.1E-02 | AF129756.1 | NT | Homo sapiens MSH55 gene, partial cds; and CLIC1, DDAH, G6b, G6c, G5b, G6d, G6e, G6f, BAT5, G5b, CSK2B, BAT4, G4, Apo M, BAT3, BAT2, AIF-1, 1C7, LST-1, LTB, TNF, and LTA genes, complete cds |
| 7469 | 26218 | | 0.61 | 9.1E-02 | AF029308.1 | NT | Homo sapiens chromosome 9 duplication of the T cell receptor beta locus and trypsinogen gene families |
| 7546 | 20618 | 34094 | 12.21 | 9.1E-02 | AW160658.1 | EST_HUMAN | au74a05.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2781968 5' |
| 7852 | 20907 | 34411 | 0.95 | 9.1E-02 | AP000061.1 | NT | Aeropyrum pernix genomic DNA, section 4/7 |
| 7887 | 20939 | 34445 | 1.02 | 9.1E-02 | U39073.1 | NT | Mus musculus thymopoietin zeta mRNA, complete cds |
| 9124 | 22203 | 35746 | 0.96 | 9.1E-02 | Y14379.1 | NT | Homo sapiens gamma adducin gene, exon 9 |
| 10642 | 23676 | | 1.46 | 9.1E-02 | T02984.1 | EST_HUMAN | FB19F10 Fetal brain, Strategene Homo sapiens cDNA clone FB19F10 3'end |
| 10674 | 23708 | 37316 | 1.02 | 9.1E-02 | S74059.1 | NT | Tg616=Cyl actin [Tripneustes gratilla=sea urchins, embryos, Genomic, 5275 nt] |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10703 | 23736 | 37341 | 0.8 | 9.1E-02 | Y11187.1 | NT | A.thaliana RH1, TC1, G14587-5, G14587-6, and PRL1 genes |
| 11441 | 24602 | 38170 | 2.13 | 9.1E-02 | AF037625.1 | NT | Rana catesbeiana dihydropyridine receptor mRNA, complete cds |
| 12151 | 25121 | | 7.04 | 9.1E-02 | 9633494 | NT | Bacteriophage Mu, complete genome |
| 12393 | 26124 | | 1.42 | 9.1E-02 | AA179901.1 | EST_HUMAN | zp38h12.s1 Stratagene muscle 937209 Homo sapiens cDNA clone IMAGE:611783 3' similar to SW:TRT3_HUMAN P45378 TROPONIN T, FAST SKELETAL MUSCLE, ISOFORM BETA ; |
| 12473 | 25326 | | 1.32 | 9.1E-02 | AF052695.1 | NT | Rattus norvegicus cell cycle protein p55CDC gene, complete cds |
| 12996 | 25954 | | 13.49 | 9.1E-02 | AJ291390.1 | NT | Homo sapiens partial MUC3B gene for MUC3B mucin, exons 1-11 |
| 13230 | 25799 | | 1.27 | 9.1E-02 | AF226688.1 | NT | Bombyx mori fibroin heavy chain Fib-H (fib-H) gene, complete cds |
| 763 | 13944 | 26990 | 5.89 | 9.0E-02 | P15328 | SWISSPROT | FOLATE RECEPTOR ALPHA PRECURSOR (FR-ALPHA) (FOLATE RECEPTOR 1) (FOLATE RECEPTOR, ADULT) (ADULT FOLATE-BINDING PROTEIN) (FBP) (OVARIAN TUMOR-ASSOCIATED ANTIGEN MOV18) (KB CELLS FBP) |
| 1664 | 14816 | 27899 | 7.33 | 9.0E-02 | BE220482.1 | EST_HUMAN | hv39g10.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3175842 3' similar to contains Alu repetitive element; |
| 2454 | 15582 | 28710 | 1.18 | 9.0E-02 | AW801364.1 | EST_HUMAN | IL5-UM0067-240300-050-h06 UM0067 Homo sapiens cDNA |
| 2864 | 15978 | 29088 | 4.99 | 9.0E-02 | AF138522.1 | NT | HIV-1 p8c095-06 from USA envelope glycoprotein (env) gene, partial cds |
| 2864 | 15978 | 29089 | 4.99 | 9.0E-02 | AF138522.1 | NT | HIV-1 p8c095-06 from USA envelope glycoprotein (env) gene, partial cds |
| 3417 | 16586 | 29603 | 1.11 | 9.0E-02 | AF279135.1 | NT | Dictyostelium discoideum spore coat structural protein SP65 (cotE) gene, complete cds |
| 4414 | 17566 | 30541 | 0.6 | 9.0E-02 | S68757.1 | NT | corticosteroid-binding globulin [Saimiri sciureus=squirrel monkeys, liver, mRNA, 1474 nt] |
| 4414 | 17555 | 30542 | 0.6 | 9.0E-02 | S68757.1 | NT | corticosteroid-binding globulin [Saimiri sciureus=squirrel monkeys, liver, mRNA, 1474 nt] |
| 4790 | 17925 | 30913 | 2.03 | 9.0E-02 | X65740.2 | NT | Plasmodium falciparum P-type ATPase 3 gene |
| 6118 | 19298 | 32634 | 7.2 | 9.0E-02 | W56037.1 | EST_HUMAN | za68a12.r1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:297694 5' similar to PIR:S52171 S52171 small G protein - human ; |
| 6860 | 20012 | | 0.93 | 9.0E-02 | BF062651.1 | EST_HUMAN | 7h63d03.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:3320645 3' similar to contains Alu repetitive element; |
| 12819 | 25546 | | 1.82 | 9.0E-02 | AF022236.1 | NT | Escherichia coli strain E2348/69 pathogenicity island, rOrf1 (rorf1), rOrf2 (rorf2), EscR (escR), EscS (escS), EscT (escT), EscU (escU), CesD (cesD), EscC (escC), EscJ (escJ), SepZ (sepZ), EscV (escV), EscN (escN), SepQ (sepQ), Tir (tir), OrfU (orfU), > |
| 1469 | 14623 | 27706 | 1.25 | 8.9E-02 | BF701593.1 | EST_HUMAN | 602129030F2 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4285951 5' |
| 1469 | 14623 | 27707 | 1.25 | 8.9E-02 | BF701593.1 | EST_HUMAN | 602129030F2 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4285951 5' |
| 2460 | 15587 | 28714 | 1.64 | 8.9E-02 | BE153572.1 | EST_HUMAN | PM0-HT0339-251199-003-d01 HT0339 Homo sapiens cDNA |
| 4316 | 17459 | | 1.69 | 8.9E-02 | AF286055.1 | NT | Atrichum angustatum AtranFlo2 protein (AtranFlo2) gene, partial cds |
| 5972 | 19158 | 32474 | 2.7 | 8.9E-02 | AW452122.1 | EST_HUMAN | UI-H-BI3-alo-f-08-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:3068294 3' |
| 5972 | 19158 | 32475 | 2.7 | 8.9E-02 | AW452122.1 | EST_HUMAN | UI-H-BI3-alo-f-08-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:3068294 3' |
| 5987 | 19172 | 32494 | 3.34 | 8.9E-02 | 11433478 | NT | Homo sapiens similar to endoglycan (H. sapiens) (LOC83107), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7343 | 20423 | 33886 | 1.6 | 8.9E-02 | P47259 | SWISSPROT | FOLD BIFUNCTIONAL PROTEIN [INCLUDES: METHYLENETETRAHYDROFOLATE DEHYDROGENASE ; METHENYLTETRAHYDROFOLATE CYCLOHYDROLASE ] |
| 7731 | 20793 | | 1.77 | 8.9E-02 | Z79021.1 | NT | H.sapiens flow-sorted chromosome 6 HindIII fragment, SC6pA20F8 |
| 8240 | 21322 | 34839 | 1.19 | 8.9E-02 | P29475 | SWISSPROT | NITRIC-OXIDE SYNTHASE, BRAIN (NOS, TYPE I) (NEURONAL NOS) (N-NOS) (NNOS) (CONSTITUTIVE NOS) (NC-NOS) (BNOS) |
| 8323 | 21405 | 34932 | 0.76 | 8.9E-02 | BF701665.1 | EST_HUMAN | 602129111F2 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4285827 5' |
| 8323 | 21405 | 34933 | 0.76 | 8.9E-02 | BF701665.1 | EST_HUMAN | 602129111F2 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4285827 5' |
| 8797 | 21876 | 36416 | 5.85 | 8.9E-02 | AA309319.1 | EST_HUMAN | EST180187 Liver, hepatocellular carcinoma Homo sapiens cDNA 5' end |
| 9819 | 22869 | 36439 | 0.84 | 8.9E-02 | AI285627.1 | EST_HUMAN | qu55c05.x1 NCI_CGAP_Lym6 Homo sapiens cDNA clone IMAGE:1968680 3' similar to contains MER10.b1 MER10 repetitive element ; |
| 9819 | 22859 | 36440 | 0.84 | 8.9E-02 | AI285627.1 | EST_HUMAN | qu55c05.x1 NCI_CGAP_Lym6 Homo sapiens cDNA clone IMAGE:1868680 3' similar to contains MER10.b1 MER10 repetitive element ; |
| 9934 | 22973 | 36565 | 0.63 | 8.9E-02 | AA339356.1 | EST_HUMAN | EST44454 Fetal brain I Homo sapiens cDNA 5' end |
| 12213 | 25962 | | 1.8 | 8.9E-02 | P19524 | SWISSPROT | MYOSIN-2 ISOFORM |
| 12366 | 25262 | | 3.82 | 8.9E-02 | BF696918.1 | EST_HUMAN | 602129682F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4286180 5' |
| 12537 | 25366 | | 2.75 | 8.9E-02 | 6680220 | NT | Mus musculus hippocampus abundant gene transcript 1 (Hiat1), mRNA |
| 12584 | 25393 | | 2 | 8.9E-02 | U29895.1 | NT | Human 4-hydroxyphenylpyruvate-dioxygenase gene, complete cds |
| 12827 | 26199 | | 1.16 | 8.9E-02 | U40493.1 | NT | Ceratitis capitata mariner transposon transposase gene, complete cds |
| 12880 | 26133 | | 1.54 | 8.9E-02 | AE001514.1 | NT | Helicobacter pylori, strain J99 section 75 of 132 of the complete genome |
| 1404 | 14558 | 27632 | 0.96 | 8.8E-02 | Q27474 | SWISSPROT | PROBABLE DNA LIGASE (POLYDEOXYRIBONUCLEOTIDE SYNTHASE [ATP]) |
| 4012 | 17169 | 30177 | 1.07 | 8.8E-02 | AA299128.1 | EST_HUMAN | EST11595 Uterus Homo sapiens cDNA 5' end |
| 4145 | 17297 | | 5.23 | 8.8E-02 | O00268 | SWISSPROT | TRANSCRIPTION INITIATION FACTOR TFIID 135 KDA SUBUNIT (TAFII-135) (TAFII135) (TAFII-130) (TAFII130) |
| 4418 | 17559 | | 0.75 | 8.8E-02 | 4580423 | NT | Homo sapiens paired box gene 6 (aniridia, keratitis) (PAX6), isoform b, mRNA |
| 7716 | 20780 | | 0.71 | 8.8E-02 | D17520.1 | NT | Sheep mRNA for angiotensinogen, complete cds |
| 9188 | 22266 | 35807 | 2.07 | 8.8E-02 | AA151872.1 | EST_HUMAN | zn99a05.s1 Stratagene colon (#937204) Homo sapiens cDNA clone IMAGE:566288 3' |
| 11380 | 24441 | 38099 | 2.79 | 8.8E-02 | BE264455.1 | EST_HUMAN | 601191770F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3535648 5' |
| 11380 | 24441 | 38100 | 2.79 | 8.8E-02 | BE264455.1 | EST_HUMAN | 601191770F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3535648 5' |
| 11541 | 24597 | 38273 | 5.25 | 8.8E-02 | AL040129.1 | EST_HUMAN | DKFZp434D1313_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434D1313 5' |
| 12443 | 25314 | 32090 | 1.19 | 8.8E-02 | Z71561.1 | NT | S.cerevisiae chromosome XIV reading frame ORF YNL285w |
| 3785 | 16946 | 29953 | 4.17 | 8.7E-02 | U82695.2 | NT | Homo sapiens zinc finger protein 92 (ZFP92), expressed-Xq28STS protein (XQ28ORF), and biglycan (BGN) genes, complete cds; and plasma membrane calcium ATPase isoform 3 (PMCA3) gene, partial cds |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3785 | 16946 | 29954 | 4.17 | 8.7E-02 | U82695.2 | NT | Homo sapiens zinc finger protein 92 (ZFP92), expressed-Xq28STS protein (XQ28ORF), and biglycan (BGN) genes, complete cds; and plasma membrane calcium ATPase isoform 3 (PMCA3) gene, partial cds |
| 4829 | 17962 | 30950 | 1.4 | 8.7E-02 | AF178636.1 | NT | Mus musculus JNK interacting protein-3a (Jip3) mRNA, complete cds |
| 5211 | 18332 | | 1.07 | 8.7E-02 | AE000895.1 | NT | Methanobacterium thermoautotrophicum from bases 1176181 to 1189406 (section 101 of 148) of the complete genome |
| 5429 | 18629 | 31605 | 5.49 | 8.7E-02 | AA286875.1 | EST_HUMAN | zs55g08.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:701438 3' |
| 5429 | 18629 | 31606 | 5.49 | 8.7E-02 | AA286875.1 | EST_HUMAN | zs55g08.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:701438 3' |
| 6984 | 20212 | 33642 | 0.63 | 8.7E-02 | AJ271885.2 | NT | Mus musculus partial Kcnq1 gene for potassium channel protein, exons 10-14 |
| 6984 | 20212 | 33643 | 0.63 | 8.7E-02 | AJ271885.2 | NT | Mus musculus partial Kcnq1 gene for potassium channel protein, exons 10-14 |
| 7188 | 20053 | 33463 | 0.57 | 8.7E-02 | AF281342.1 | NT | Oncorhynchus mykiss TAT-binding protein 1 mRNA, partial cds |
| 8046 | 21129 | | 0.56 | 8.7E-02 | AA284532.1 | EST_HUMAN | zt20e03.s1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:713692 3' |
| 8713 | 21793 | 35329 | 0.66 | 8.7E-02 | AE004787.1 | NT | Pseudomonas aeruginosa PA01, section 348 of 529 of the complete genome |
| 8713 | 21793 | 35330 | 0.66 | 8.7E-02 | AE004787.1 | NT | Pseudomonas aeruginosa PA01, section 348 of 529 of the complete genome |
| 10951 | 24033 | | 2.01 | 8.7E-02 | L04758.1 | NT | Oryctolagus cuniculus cytochrome P-450 (CYP4A4) gene, 5' end |
| 11591 | 24644 | 38326 | 1.48 | 8.7E-02 | AJ007763.1 | NT | Gluconobacter oxydans tRNA-Ile and tRNA-Ala genes |
| 12431 | 25306 | | 2.2 | 8.7E-02 | X17116.1 | NT | Human DNA for immunoglobulin alpha heavy chain from a case of alpha heavy chain disease |
| 12648 | 25432 | | 2.85 | 8.7E-02 | 6679067 | NT | Mus musculus nidogen 2 (Nid2), mRNA |
| 13033 | 25680 | | 2.05 | 8.7E-02 | X65292.1 | NT | G.gallus mRNA for vigilin |
| 1281 | 14437 | 27506 | 7.73 | 8.6E-02 | AJ271736.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 2/2 |
| 2317 | 15449 | 28581 | 2.2 | 8.6E-02 | BE408667.1 | EST_HUMAN | 601304016F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638643 5' |
| 3257 | 16431 | 29448 | 2.35 | 8.6E-02 | L05468.1 | NT | Trichomonas vaginalis beta-tubulin (btub1) gene, complete cds |
| 3734 | 16895 | | 3.69 | 8.6E-02 | AF153362.1 | NT | Dictyostelium discoideum adenylyl cyclase (acrA) gene, complete cds |
| 3880 | 17039 | | 0.6 | 8.6E-02 | U29187.1 | NT | Mus musculus long incubation prion protein (Prnpb) and prion-like protein (Prnd) genes, complete cds |
| 4609 | 17746 | 30725 | 0.66 | 8.6E-02 | U68179.1 | NT | Oryctolagus cuniculus galectin-3 gene, untranslated exon and 5' flanking region |
| 5330 | 18443 | | 1.02 | 8.6E-02 | AB011163.1 | NT | Homo sapiens mRNA for KIAA0591 protein, partial cds |
| 6219 | 19394 | 32743 | 4.74 | 8.6E-02 | Y10826.1 | NT | Homo sapiens LCN1b gene |
| 6504 | 19670 | 33035 | 1.29 | 8.6E-02 | J00440.1 | NT | Mouse germline IgM chain gene, D region; D-q52, mu switch region (part a) |
| 6504 | 19670 | 33036 | 1.29 | 8.6E-02 | J00440.1 | NT | Mouse germline IgM chain gene, D region; D-q52, mu switch region (part a) |
| 7755 | 20814 | 34306 | 0.89 | 8.6E-02 | P14616 | SWISSPROT | INSULIN RECEPTOR-RELATED PROTEIN PRECURSOR (IRR) (IR-RELATED RECEPTOR) |
| 8115 | 21197 | 34716 | 1.09 | 8.6E-02 | 5730066 | NT | Homo sapiens Snf2-related CBP activator protein (SRCAP) mRNA |
| 8115 | 21197 | 34717 | 1.09 | 8.6E-02 | 5730066 | NT | Homo sapiens Snf2-related CBP activator protein (SRCAP) mRNA |
| 8261 | 21343 | 34860 | 0.56 | 8.6E-02 | 11427428 | NT | Homo sapiens hypothetical protein FLJ11006 (FLJ11006), mRNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8324 | 21406 | | 0.76 | 8.6E-02 | U60168.1 | NT | Dictyostelium discoideum proteasome subunit C2 homolog PrtC (prtC) gene, complete cds |
| 9938 | 22977 | 36568 | 1.24 | 8.6E-02 | AF111170.3 | NT | Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene |
| 9975 | 23014 | | 1.4 | 8.6E-02 | AW662153.1 | EST_HUMAN | hl20c08.x1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2972846 3' |
| 10356 | 23391 | 37001 | 1.07 | 8.6E-02 | AF026504.1 | NT | Rattus norvegicus SPA-1 like protein p1294 mRNA, complete cds |
| 11188 | 24257 | 37892 | 1.82 | 8.6E-02 | AF206551.1 | NT | Lacerta media cytochrome c oxidase subunit 1 gene, partial cds; mitochondrial gene for mitochondrial product |
| 11188 | 24257 | 37893 | 1.82 | 8.6E-02 | AF206551.1 | NT | Lacerta media cytochrome c oxidase subunit 1 gene, partial cds; mitochondrial gene for mitochondrial product |
| 11627 | 24583 | 38259 | 3.02 | 8.6E-02 | BF305606.1 | EST_HUMAN | 601893437F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4139216 5' |
| 11527 | 24583 | 38260 | 3.02 | 8.6E-02 | BF305606.1 | EST_HUMAN | 601893437F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4139216 5' |
| 11724 | 23910 | 37534 | 7.67 | 8.6E-02 | AE001073.1 | NT | Archaeoglobus fulgidus section 34 of 172 of the complete genome |
| 11875 | 24863 | 38559 | 2.29 | 8.6E-02 | AF283660.1 | NT | Bacillus stearothermophilus BsrFI methylase (FIM) and BsrFI restriction endonuclease (FIR) genes, complete cds |
| 2470 | 15597 | 28722 | 2.58 | 8.5E-02 | AE000652.1 | NT | Helicobacter pylori 26695 section 130 of 134 of the complete genome |
| 5292 | 18410 | | 0.66 | 8.5E-02 | N76915.1 | EST_HUMAN | yv46h08.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:245823 5' |
| 5786 | 18978 | 32283 | 0.73 | 8.5E-02 | AA985491.1 | EST_HUMAN | oq83b07.s1 NCI_CGAP_Kid6 Homo sapiens cDNA clone IMAGE:1592917 3' similar to gb:K01144 HLA CLASS II HISTOCOMPATIBILITY ANTIGEN, GAMMA CHAIN PRECURSOR (HUMAN); |
| 5826 | 19016 | | 1.99 | 8.5E-02 | P08089 | SWISSPROT | M PROTEIN, SEROTYPE 6 PRECURSOR |
| 6136 | 19314 | 32653 | 6.61 | 8.5E-02 | AF233885.1 | NT | Mus musculus phospholipase C-like protein mRNA, partial cds |
| 8805 | 21884 | 35424 | 1.98 | 8.5E-02 | 6754779 | NT | Mus musculus myosin XV (Myo15), mRNA |
| 10041 | 23079 | 36680 | 3.27 | 8.5E-02 | BE833054.1 | EST_HUMAN | RC4-OT0037-200700-014-e05 OT0037 Homo sapiens cDNA |
| 10041 | 23079 | 36681 | 3.27 | 8.5E-02 | BE833054.1 | EST_HUMAN | RC4-OT0037-200700-014-e05 OT0037 Homo sapiens cDNA |
| 10572 | 23607 | 37212 | 0.64 | 8.5E-02 | X76731.1 | NT | V.ammodytes gene for ammodytoxin C |
| 10702 | 23735 | 37340 | 0.82 | 8.5E-02 | 11418108 | NT | Homo sapiens chromosome 22 open reading frame 5 (C22ORF5), mRNA |
| 11424 | 24485 | | 8.03 | 8.5E-02 | AF155510.1 | NT | Homo sapiens heparanase precursor, mRNA, complete cds |
| 11446 | 24507 | 38173 | 3.82 | 8.5E-02 | AB001562.1 | NT | Streptococcus mutans gene for glucose-1-phosphate uridylyltransferase, complete cds |
| 12873 | 25886 | | 2.76 | 8.5E-02 | AJ005586.1 | NT | Antirrhinum majus mRNA for MYB-related transcription factor |
| 13070 | 25700 | | 2.44 | 8.5E-02 | AA362934.1 | EST_HUMAN | EST72736 Ovary II Homo sapiens cDNA 5' end |
| 2732 | 16070 | 28961 | 4.05 | 8.4E-02 | W69330.1 | EST_HUMAN | zd44e11.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:343532 5' |
| 5427 | 18627 | 31603 | 9.84 | 8.4E-02 | BE267153.1 | EST_HUMAN | 601190436F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3534393 5' |
| 6828 | 19981 | 33388 | 1.46 | 8.4E-02 | AK024458.1 | NT | Homo sapiens mRNA for FLJ00050 protein, partial cds |
| 8218 | 21300 | 34821 | 6.95 | 8.4E-02 | BE095074.1 | EST_HUMAN | CM3-BT0790-260400-162-d05 BT0790 Homo sapiens cDNA |
| 9043 | 22122 | 35664 | 1.16 | 8.4E-02 | AF218890.1 | NT | Homo sapiens attractin precursor (ATRN) gene, exon 2 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10571 | 23606 | 37211 | 1.84 | 8.4E-02 | AI735184.1 | EST_HUMAN | as88g10.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2335842 3' similar to TR:O88312 O88312 GOB-4. ; |
| 10631 | 23665 | | 0.48 | 8.4E-02 | AV730682.1 | EST_HUMAN | AV730682 HTF Homo sapiens cDNA clone HTFBMG04 5' |
| 12351 | 25254 | 32114 | 1.67 | 8.4E-02 | R79408.1 | EST_HUMAN | yi83h12.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:145895 5' |
| 3682 | 16845 | 29853 | 7.77 | 8.3E-02 | P75334 | SWISSPROT | HYPOTHETICAL LIPOPROTEIN MG309 HOMOLOG PRECURSOR |
| 3709 | 16870 | 29873 | 0.75 | 8.3E-02 | AI436797.1 | EST_HUMAN | th82g06.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:2125210 3' |
| 3709 | 16870 | 29874 | 0.75 | 8.3E-02 | AI436797.1 | EST_HUMAN | th82g06.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:2125210 3' |
| 4417 | 17558 | | 0.68 | 8.3E-02 | M54964.1 | NT | C.thummi A2b region open reading frame, complete cds |
| 6389 | 19558 | 32917 | 0.74 | 8.3E-02 | AI942838.1 | EST_HUMAN | wo79f11.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2461581 3' |
| 6496 | 19662 | 33025 | 2.87 | 8.3E-02 | AF052683.1 | NT | Homo sapiens protocadherin 43 gene, exon 1 |
| 8169 | 21251 | 34771 | 3.08 | 8.3E-02 | AF195787.1 | NT | Rattus norvegicus dystrophin-related protein 2 A-form splice variant (Drp2) mRNA, complete cds |
| 8202 | 21284 | | 1.06 | 8.3E-02 | AA865285.1 | EST_HUMAN | og88g08.s1 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1455422 3' similar to contains L1.t1 L1 L1 repetitive element ; |
| 8495 | 21576 | | 1.31 | 8.3E-02 | AA987873.1 | EST_HUMAN | oq81f10.s1 NCI_CGAP_Kid6 Homo sapiens cDNA clone IMAGE:1592779 3' |
| 9738 | 22803 | 36377 | 1.09 | 8.3E-02 | AW583503.1 | EST_HUMAN | ia05h10.x1 Human Pancreatic Islets Homo sapiens cDNA 3' similar to TR:Q15332 Q15332 GAMMA SUBUNIT OF SODIUM POTASSIUM ATPASE LIKE. ; |
| 9751 | 22689 | | 2.02 | 8.3E-02 | AL161595.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 91 |
| 10549 | 23584 | | 0.72 | 8.3E-02 | AF020409.1 | NT | Dictyostelium discoideum DocA (docA) mRNA, complete cds |
| 12448 | 26128 | | 1.81 | 8.3E-02 | BE958458.1 | EST_HUMAN | 601644770F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:3929893 5' |
| 1410 | 14564 | | 9.13 | 8.2E-02 | Y08170.2 | NT | Gallus gallus mRNA for for OBCAM protein gamma isoform |
| 1525 | 14678 | 27759 | 2.03 | 8.2E-02 | AF167077.2 | NT | Canis familiaris glutamate transporter (EAAT4) mRNA, complete cds |
| 3141 | 16317 | | 1.97 | 8.2E-02 | AL163206.2 | NT | Homo sapiens chromosome 21 segment HS21C006 |
| 3904 | 17063 | | 1.35 | 8.2E-02 | AL161498.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 10 |
| 4114 | 17268 | 30268 | 0.99 | 8.2E-02 | AL163206.2 | NT | Homo sapiens chromosome 21 segment HS21C006 |
| 4399 | 17542 | 30523 | 6.58 | 8.2E-02 | P48960 | SWISSPROT | LEUCOCYTE ANTIGEN CD97 PRECURSOR |
| 4399 | 17542 | 30524 | 6.58 | 8.2E-02 | P48960 | SWISSPROT | LEUCOCYTE ANTIGEN CD97 PRECURSOR |
| 4399 | 17542 | 30525 | 6.58 | 8.2E-02 | P48960 | SWISSPROT | LEUCOCYTE ANTIGEN CD97 PRECURSOR |
| 5192 | 18314 | 31282 | 3.43 | 8.2E-02 | U76009.1 | NT | Mus musculus zinc transporter (ZnT-3) gene, complete cds |
| 5450 | 18650 | 31628 | 1.46 | 8.2E-02 | BE897030.1 | EST_HUMAN | 601439576F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924523 5' |
| 7165 | 20298 | 33741 | 3.16 | 8.2E-02 | AF309555.1 | NT | Bos taurus connective tissue growth factor precursor (CTGF) gene, complete cds |
| 7910 | 20962 | | 0.58 | 8.2E-02 | AV743341.1 | EST_HUMAN | AV743341 CB Homo sapiens cDNA clone CBLANF07 5' |
| 8905 | 21984 | | 0.59 | 8.2E-02 | U29397.1 | NT | Rattus norvegicus plasma membrane Ca2+ ATPase isoform 3 (PMCA3) gene, 5' flanking region |
| 8971 | 22050 | 35593 | 3.24 | 8.2E-02 | AW876126.1 | EST_HUMAN | RC2-PT0004-031299-011-d05 PT0004 Homo sapiens cDNA |
| 9799 | 22839 | 36416 | 4.88 | 8.2E-02 | X04197.1 | NT | Beet necrotic yellow vein virus RNA-2 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9965 | 23004 | 36599 | 2.27 | 8.2E-02 | BE254318.1 | EST_HUMAN | 601115055F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3355598 5' |
| 12454 | 25318 | 32094 | 3.93 | 8.2E-02 | AE002246.2 | NT | Chlamydophila pneumoniae AR39, section 73 of 94 of the complete genome |
| 12686 | 25458 | 32021 | 1.43 | 8.2E-02 | AW862195.1 | EST_HUMAN | QV4-CT0361-021299-049-b01 CT0361 Homo sapiens cDNA |
| 12909 | 25875 |  | 2.58 | 8.2E-02 | AF275366.1 | NT | Mus musculus epidermal growth factor receptor (Egfr) gene, exons 5 through 28, and complete cds, alternatively spliced |
| 1524 | 14677 | 27758 | 0.96 | 8.1E-02 | AB017138.1 | NT | Pseudomonas putida malonate decarboxylase gene cluster (mdcA, mdcB, mdcC, mdcD, mdcE, mdcG, mdcH, mdcL and mdcM genes), complete cds |
| 6873 | 19063 | 32371 | 1.03 | 8.1E-02 | AE004006.1 | NT | Xylella fastidiosa, section 152 of 229 of the complete genome |
| 6509 | 19674 | 33043 | 0.89 | 8.1E-02 | T11532.1 | EST_HUMAN | A1484F Heart Homo sapiens cDNA clone A1484 |
| 7347 | 20427 |  | 0.83 | 8.1E-02 | AL163279.2 | NT | Homo sapiens chromosome 21 segment HS21C079 |
| 7756 | 20815 |  | 0.99 | 8.1E-02 | AI692681.1 | EST_HUMAN | wd86f08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2338503 3' |
| 8535 | 21616 | 35151 | 0.56 | 8.1E-02 | 11426974 | NT | Homo sapiens hypothetical protein FLJ10060 (FLJ10060), mRNA |
| 8535 | 21616 | 35152 | 0.56 | 8.1E-02 | 11426074 | NT | Homo sapiens hypothetical protein FLJ10060 (FLJ10060), mRNA |
| 10116 | 23164 |  | 1.83 | 8.1E-02 | AY005150.1 | NT | Homo sapiens extracellular glycoprotein lacritin precursor, gene, complete cds |
| 10685 | 23719 |  | 0.7 | 8.1E-02 | AW269778.1 | EST_HUMAN | xv45b11.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2816061 3' |
| 10858 | 23891 | 37511 | 0.47 | 8.1E-02 | AW450487.1 | EST_HUMAN | UI-H-BI3-ako-g-01-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2735040 3' |
| 10858 | 23891 | 37512 | 0.47 | 8.1E-02 | AW450487.1 | EST_HUMAN | UI-H-BI3-ako-g-01-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2735040 3' |
| 11790 | 24780 | 38477 | 1.99 | 8.1E-02 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 6 | 16003 | 26246 | 7.61 | 8.0E-02 | AW954663.1 | EST_HUMAN | EST366723 MAGE resequences, MAGC Homo sapiens cDNA |
| 959 | 14132 | 27191 | 0.65 | 8.0E-02 | U60315.1 | NT | Molluscum contagiosum virus subtype 1, complete genome |
| 1733 | 16046 | 27974 | 11.83 | 8.0E-02 | D26535.1 | NT | Human gene for dihydrolipoamide succinyltransferase, complete cds (exon 1-15) |
| 1733 | 16046 | 27975 | 11.83 | 8.0E-02 | D26535.1 | NT | Human gene for dihydrolipoamide succinyltransferase, complete cds (exon 1-15) |
| 1952 | 15095 | 28196 | 4.4 | 8.0E-02 | BE067219.1 | EST_HUMAN | PM3-BT0347-170200-001-b08 BT0347 Homo sapiens cDNA |
| 2447 | 15575 | 28704 | 0.93 | 8.0E-02 | D90915.1 | NT | Synechocystis sp. PCC6803 complete genome, 17/27, 2137259-2267259 |
| 2447 | 15575 | 28705 | 0.93 | 8.0E-02 | D90915.1 | NT | Synechocystis sp. PCC6803 complete genome, 17/27, 2137259-2267259 |
| 2541 | 15666 |  | 3.21 | 8.0E-02 | BF246744.1 | EST_HUMAN | 601855548F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4075619 5' |
| 2881 | 14280 | 27336 | 1.55 | 8.0E-02 | M23449.1 | NT | Dictyoselium discoideum cyclic nucleotide phosphodiesterase gene, complete cds |
| 2965 | 16141 | 29159 | 1.05 | 8.0E-02 | AL445067.1 | NT | Thermoplasma acidophilum complete genome; segment 5/5 |
| 3919 | 17078 | 30075 | 0.93 | 8.0E-02 | AW966118.1 | EST_HUMAN | EST378191 MAGE resequences, MAGI Homo sapiens cDNA |
| 4182 | 17332 |  | 0.74 | 8.0E-02 | 4503034 | NT | Homo sapiens cAMP responsive element binding protein-like 2 (CREBL2) mRNA |
| 4935 | 18065 |  | 6.87 | 8.0E-02 | X72794.1 | NT | M.musculus gene for gelatinase B |
| 5038 | 18166 | 31142 | 0.82 | 8.0E-02 | M28071.1 | NT | Herpesvirus saimiri transformation-associated protein (STP), and dihydrofolate reductase (DHFR) gene,s complete cds, and small nuclear RNAs (uRNAs) |
| 6012 | 19196 | 32513 | 3.59 | 8.0E-02 | AF276948.1 | NT | Homo sapiens ABCA1 (ABCA1) gene, complete cds |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7330 | 19196 | 32513 | 1.61 | 8.0E-02 | AF275948.1 | NT | Homo sapiens ABCA1 (ABCA1) gene, complete cds |
| 8319 | 21401 | 34926 | 2.41 | 8.0E-02 | AL114993.1 | NT | Botrytis cinerea strain T4 cDNA library under conditions of nitrogen deprivation |
| 9589 | 22644 | 36213 | 1.38 | 8.0E-02 | X74208.1 | NT | H.sapiens AGT gene, intron 4 |
| 9589 | 22644 | 36214 | 1.38 | 8.0E-02 | X74208.1 | NT | H.sapiens AGT gene, intron 4 |
| 10361 | 23396 | | 0.49 | 8.0E-02 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 11032 | 24111 | 37747 | 2.64 | 8.0E-02 | AF217796.1 | NT | Homo sapiens SCG10 like-protein, helicase-like protein NHL, M68, and ADP-ribosylation factor related protein 1 (ARFRP1) genes, complete cds |
| 12127 | 25107 | 38811 | 1.69 | 8.0E-02 | 4507608 | NT | Homo sapiens tumor necrosis factor (ligand) superfamily, member 9 (TNFSF9) mRNA |
| 12486 | 25337 | 32061 | 3.54 | 8.0E-02 | AJ005376.1 | NT | Drosophila orena hunchback region |
| 13134 | 17332 | | 1.85 | 8.0E-02 | 4503034 | NT | Homo sapiens cAMP responsive element binding protein-like 2 (CREBL2) mRNA |
| 2243 | 15376 | 28504 | 3.37 | 7.9E-02 | BE250008.1 | EST_HUMAN | 600943191F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2959510 5' |
| 3043 | 16219 | 29240 | 12.53 | 7.9E-02 | AI582029.1 | EST_HUMAN | ar98c08.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2173646 3' similar to gb:Z26876 60S RIBOSOMAL PROTEIN L36 (HUMAN); |
| 3953 | 17111 | 30110 | 4.47 | 7.9E-02 | 6681044 | NT | Mus musculus colony stimulating factor 1 receptor (Csf1r), mRNA |
| 3953 | 17111 | 30111 | 4.47 | 7.9E-02 | 6681044 | NT | Mus musculus colony stimulating factor 1 receptor (Csf1r), mRNA |
| 4932 | 18062 | | 1.16 | 7.9E-02 | AB008019.1 | NT | Arabidopsis thaliana RXW24L mRNA, partial cds |
| 6836 | 19989 | | 1.14 | 7.9E-02 | BF368016.1 | EST_HUMAN | RC3-GN0042-310800-024-d11 GN0042 Homo sapiens cDNA |
| 8221 | 21303 | 34824 | 3.1 | 7.9E-02 | U27832.1 | NT | Saccharomyces cerevisiae suppressor of MIF2 Smt4p (SMT4) gene, complete cds |
| 10234 | 23269 | 36859 | 5.6 | 7.9E-02 | AI081644.1 | EST_HUMAN | ou63b05.s1 NCI_CGAP_Br2 Homo sapiens cDNA clone IMAGE:1632465 3' similar to WP:C37A2.2 CE08611 ; |
| 10234 | 23269 | 36860 | 5.6 | 7.9E-02 | AI081644.1 | EST_HUMAN | ou63b05.s1 NCI_CGAP_Br2 Homo sapiens cDNA clone IMAGE:1632465 3' similar to WP:C37A2.2 CE08611 ; |
| 13008 | 25664 | | 1.27 | 7.9E-02 | AI761639.1 | EST_HUMAN | wg66h01.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2370097 3' |
| 1237 | 14396 | 27457 | 1.49 | 7.8E-02 | AI793276.1 | EST_HUMAN | oo59d02.y5 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1570467 5' similar to contains L1.t3 L1 repetitive element ; |
| 1237 | 14396 | 27458 | 1.49 | 7.8E-02 | AI793276.1 | EST_HUMAN | oo59d02.y5 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1570467 5' similar to contains L1.t3 L1 repetitive element ; |
| 4915 | 18045 | 31035 | 0.6 | 7.8E-02 | BE836331.1 | EST_HUMAN | PM3-FN0058-140700-005-f09 FN0058 Homo sapiens cDNA |
| 5198 | 17003 | | 2.97 | 7.8E-02 | BE250048.1 | EST_HUMAN | 600943055F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2959693 5' |
| 7223 | 20087 | 33504 | 1.1 | 7.8E-02 | U82695.2 | NT | Homo sapiens zinc finger protein 92 (ZFP92), expressed-Xq28STS protein (XQ28ORF), and biglycan (BGN) genes, complete cds; and plasma membrane calcium ATPase isoform 3 (PMCA3) gene, partial cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7223 | 20087 | 33505 | 1.1 | 7.8E-02 | U82695.2 | NT | Homo sapiens zinc finger protein 92 (ZFP92), expressed-Xq28STS protein (XQ28ORF), and biglycan (BGN) genes, complete cds; and plasma membrane calcium ATPase isoform 3 (PMCA3) gene, partial cds |
| 8985 | 22064 | 35604 | 0.93 | 7.8E-02 | BE897947.1 | EST_HUMAN | 601440439F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3925449 5' |
| 9081 | 22160 | 35702 | 0.69 | 7.8E-02 | X78344.1 | NT | S.cerevisiae CAT8 gene |
| 9263 | 22330 | 35877 | 0.8 | 7.8E-02 | AF233437.1 | NT | Homo sapiens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP1b mRNA, complete cds |
| 9253 | 22330 | 35878 | 0.8 | 7.8E-02 | AF233437.1 | NT | Homo sapiens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP1b mRNA, complete cds |
| 9561 | 22703 | 36269 | 0.9 | 7.8E-02 | AA469354.1 | EST_HUMAN | nc68b06.r1 NCI_CGAP_Pr1 Homo sapiens cDNA clone IMAGE:771731 |
| 10006 | 23044 | 36637 | 0.56 | 7.8E-02 | Z99124.1 | NT | Bacillus subtilis complete genome (section 21 of 21): from 3999281 to 4214814 |
| 10901 | 23985 | 37616 | 2.19 | 7.8E-02 | U32323.1 | NT | Human interleukin-11 receptor alpha chain gene, complete cds |
| 12910 | 25602 | 31973 | 1.35 | 7.8E-02 | U72847.1 | NT | Homo sapiens envoplakin (EVPL) gene, exons 15 through 18 |
| 1431 | 16038 | 27659 | 1.22 | 7.7E-02 | AF181897.1 | NT | Homo sapiens WRN (WRN) gene, complete cds |
| 3677 | 16840 |  | 2.01 | 7.7E-02 | AJ238093.1 | NT | Homo sapiens partial AF-4 gene, exons 2 to 7 and Alu repeat elements |
| 8093 | 21175 | 34690 | 5.38 | 7.7E-02 | AA402949.1 | EST_HUMAN | zu53d11.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:741717 5' similar to TR:G1173905 G1173905 SPLICEOSOME ASSOCIATED PROTEIN. ; |
| 10040 | 23078 | 36679 | 4.88 | 7.7E-02 | P38080 | SWISSPROT | PROBABLE SERINE/THREONINE-PROTEIN KINASE YBR059C |
| 10336 | 23371 | 36981 | 0.84 | 7.7E-02 | AI318662.1 | EST_HUMAN | ta80b08.x1 NCI_CGAP_HSC2 Homo sapiens cDNA clone IMAGE:2050359 3' similar to gb:Z26876 60S RIBOSOMAL PROTEIN L38 (HUMAN); |
| 10336 | 23371 | 36982 | 0.84 | 7.7E-02 | AI318662.1 | EST_HUMAN | ta80b08.x1 NCI_CGAP_HSC2 Homo sapiens cDNA clone IMAGE:2050359 3' similar to gb:Z26876 60S RIBOSOMAL PROTEIN L38 (HUMAN); |
| 11262 | 24331 | 37972 | 3.98 | 7.7E-02 | 11422757 | NT | Homo sapiens KIAA0628 gene product (KIAA0628), mRNA |
| 3474 | 16641 | 29660 | 3.1 | 7.6E-02 | BE614432.1 | EST_HUMAN | 601318428F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3634903 5' |
| 3494 | 16661 | 29673 | 0.98 | 7.6E-02 | AA296447.1 | EST_HUMAN | EST112214 Cerebellum II Homo sapiens cDNA 5' end similar to similar to protocadherin 43 |
| 3649 | 16812 | 29825 | 0.96 | 7.6E-02 | AJ400877.1 | NT | Homo sapiens ASCL3 gene, CEGP1 gene, C11orf14 gene, C11orf15 gene, C11orf16 gene and C11orf17 gene |
| 6222 | 19397 | 32746 | 0.69 | 7.6E-02 | AI061275.1 | EST_HUMAN | an25g02.x1 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:1699730 3' |
| 6486 | 19653 | 33015 | 1.14 | 7.6E-02 | BE379328.1 | EST_HUMAN | 601236402F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3608401 5' |
| 9570 | 22712 | 36280 | 1.11 | 7.6E-02 | AJ131016.1 | NT | Homo sapiens SCL gene locus |
| 10101 | 23139 |  | 0.99 | 7.6E-02 | AL139078.2 | NT | Campylobacter jejuni NCTC11168 complete genome; segment 5/6 |
| 10424 | 23459 | 37064 | 0.5 | 7.6E-02 | BE708002.1 | EST_HUMAN | RC1-HT0546-020800-017-d08 HT0545 Homo sapiens cDNA |
| 10557 | 23592 |  | 1.04 | 7.6E-02 | BE959638.2 | EST_HUMAN | 601654915R1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:3839810 3' |
| 10815 | 23848 | 37469 | 0.97 | 7.6E-02 | X92656.1 | NT | L.esculentum mRNA for triose phosphate translocator |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10815 | 23848 | 37470 | 0.97 | 7.6E-02 | X92656.1 | NT | L.esculentum mRNA for triose phosphate translocator |
| 11974 | 24959 | 38661 | 1.93 | 7.6E-02 | AW996645.1 | EST_HUMAN | QV3-BN0046-150400-151-e04 BN0046 Homo sapiens cDNA |
| 807 | 13987 | 27039 | 1.66 | 7.5E-02 | 5902093 | NT | Homo sapiens solute carrier family 6 (neurotransmitter transporter, glycine), member 9 (SLC6A9), mRNA |
| 807 | 13987 | 27040 | 1.66 | 7.5E-02 | 5902093 | NT | Homo sapiens solute carrier family 6 (neurotransmitter transporter, glycine), member 9 (SLC6A9), mRNA |
| 1971 | 15114 | 28214 | 0.99 | 7.5E-02 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 4630 | 17766 | 30748 | 0.74 | 7.5E-02 | AB015961.1 | NT | Homo sapiens IL-18 gene for interleukin-18, intron 1 and exon 2 |
| 5974 | 19159 | 32477 | 1.45 | 7.5E-02 | AI948714.1 | EST_HUMAN | wq24h09.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2472257 3' |
| 8533 | 21614 | 35150 | 1.28 | 7.5E-02 | AI864367.1 | EST_HUMAN | wl52b02.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2428491 3' similar to gb:M14328 ALPHA ENOLASE (HUMAN); |
| 8705 | 21785 | 35318 | 1.36 | 7.5E-02 | AU116913.1 | EST_HUMAN | AU116913 HEMBA1 Homo sapiens cDNA clone HEMBA1000264 5' |
| 10238 | 23273 |  | 0.49 | 7.5E-02 | BF221730.1 | EST_HUMAN | 7c61c05.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:3578504 3' similar to contains element MER27 repetitive element ; |
| 10711 | 23744 | 37350 | 0.73 | 7.5E-02 | BF206809.1 | EST_HUMAN | 601870205F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4100449 5' |
| 10816 | 23849 | 37471 | 0.82 | 7.5E-02 | X79460.1 | NT | C.fimi DSM 20113 16S rDNA |
| 490 | 13684 | 26718 | 1.41 | 7.4E-02 | AW838547.1 | EST_HUMAN | RC5-LT0054-260100-011-H09 LT0054 Homo sapiens cDNA |
| 1489 | 14642 |  | 1.21 | 7.4E-02 | AF030027.1 | NT | Equine herpesvirus 4 strain NS80567, complete genome |
| 2648 | 15771 |  | 0.96 | 7.4E-02 | 6755069 | NT | Mus musculus paired-like homeodomain transcription factor 1 (Pitx1), mRNA |
| 3683 | 16846 | 29854 | 1.21 | 7.4E-02 | AI807885.1 | EST_HUMAN | wf43h01.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2358385 3' |
| 4820 | 17959 | 30946 | 1.19 | 7.4E-02 | L78810.1 | NT | Homo sapiens ADP/ATP carrier protein (ANT-2) gene, complete cds |
| 4914 | 18044 | 31034 | 2.65 | 7.4E-02 | 6978442 | NT | Rattus norvegicus Activin receptor like kinase 1 (Acvrl1), mRNA |
| 5056 | 18184 | 31159 | 4.42 | 7.4E-02 | 6678492 | NT | Mus musculus ubiquintin c-terminal hydrolase related polypeptide (Uchrp), mRNA |
| 6624 | 19784 |  | 1.69 | 7.4E-02 | R17477.1 | EST_HUMAN | yg14g06.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:32339 5' |
| 6717 | 19875 | 33266 | 0.66 | 7.4E-02 | AF030422.1 | NT | Electrophorus electricus acetylcholinesterase catalytic subunit precursor gene, complete cds |
| 7636 | 20705 | 34184 | 0.64 | 7.4E-02 | AA605132.1 | EST_HUMAN | no71d02.s1 NCI_CGAP_AA1 Homo sapiens cDNA clone IMAGE:1112269 3' |
| 8085 | 21167 | 34683 | 1.11 | 7.4E-02 | BE880112.1 | EST_HUMAN | 601493366F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3895264 5' |
| 8699 | 21779 | 35312 | 1.26 | 7.4E-02 | U56089.1 | NT | Human periodic tryptophan protein 2 (PWP2) gene, exons 15 to 21, and complete cds |
| 9367 | 22442 | 36002 | 1.08 | 7.4E-02 | AW629605.1 | EST_HUMAN | hh67d11.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2967861 5' similar to SW:SCA2_HUMAN O15127 SECRETORY CARRIER-ASSOCIATED MEMBRANE PROTEIN 2. ; |
| 9367 | 22442 | 36003 | 1.08 | 7.4E-02 | AW629605.1 | EST_HUMAN | hh67d11.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2967861 5' similar to SW:SCA2_HUMAN O15127 SECRETORY CARRIER-ASSOCIATED MEMBRANE PROTEIN 2. ; |
| 9639 | 21082 | 34593 | 0.58 | 7.4E-02 | AI672939.1 | EST_HUMAN | we74d02.x1 Soares_Dieckgraefe_colon_NHCD Homo sapiens cDNA clone IMAGE:2346819 3' |
| 9639 | 21082 | 34594 | 0.58 | 7.4E-02 | AI672939.1 | EST_HUMAN | we74d02.x1 Soares_Dieckgraefe_colon_NHCD Homo sapiens cDNA clone IMAGE:2346819 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10019 | 23057 | 36653 | 1 | 7.4E-02 | U62293.1 | NT | Human LIM-kinase1 and alternatively spliced LIM-kinase1 (LIMK1) gene, complete cds |
| 10146 | 23184 | 36780 | 0.49 | 7.4E-02 | BF512678.1 | EST_HUMAN | UI-H-BW1-amg-g-06-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3069898 3' |
| 11266 | 24335 | 37975 | 1.46 | 7.4E-02 | AA059167.1 | EST_HUMAN | zf64e01.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:381720 5' |
| 11914 | 24901 | 38604 | 1.42 | 7.4E-02 | AI125063.1 | EST_HUMAN | ao11d07.s1 Barstead aorta HPLRB3 Homo sapiens cDNA clone IMAGE:1726285 3' similar to gb:M86492 GLIA MATURATION FACTOR BETA (HUMAN); |
| 12409 | 25288 |  | 1.22 | 7.4E-02 | 11525893 | NT | Homo sapiens histone deacetylase 5 (NY-CO-9), mRNA |
| 12692 | 26101 |  | 3.74 | 7.4E-02 | AW379431.1 | EST_HUMAN | CM4-HT0243-081199-037-d11 HT0243 Homo sapiens cDNA |
| 12870 | 25580 | 31995 | 2.61 | 7.4E-02 | BF035099.1 | EST_HUMAN | 601453813F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3857738 5' |
| 12882 | 25585 | 31968 | 1.44 | 7.4E-02 | AJ223459.2 | NT | Aspergillus nidulans prnD, prnX, prnA genes |
| 481 | 13676 | 26708 | 1.15 | 7.3E-02 | BE964961.2 | EST_HUMAN | 601658738R1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3886209 3' |
| 481 | 13676 | 26709 | 1.15 | 7.3E-02 | BE964961.2 | EST_HUMAN | 601658738R1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3886209 3' |
| 702 | 13885 | 26917 | 2.65 | 7.3E-02 | AE001789.1 | NT | Thermotoga maritima section 101 of 136 of the complete genome |
| 1610 | 16040 | 27748 | 3.26 | 7.3E-02 | AW900281.1 | EST_HUMAN | CM0-NN1004-130300-284-g08 NN1004 Homo sapiens cDNA |
| 1893 | 16050 |  | 15.79 | 7.3E-02 | AL163302.2 | NT | Homo sapiens chromosome 21 segment HS21C102 |
| 5112 | 18240 |  | 1.02 | 7.3E-02 | U12283.1 | NT | Mus musculus transcription factor USF2 (USF2) gene, exons 8-10 and complete cds |
| 6582 | 19744 | 33126 | 1.46 | 7.3E-02 | AA779977.1 | EST_HUMAN | zj24a02.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:451178 3' similar to gb:L02426 26S PROTEASE SUBUNIT 4 (HUMAN); |
| 7633 | 20702 | 34180 | 2.37 | 7.3E-02 | P05143 | SWISSPROT | PROLINE-RICH PROTEIN MP-3 |
| 7633 | 20702 | 34181 | 2.37 | 7.3E-02 | P05143 | SWISSPROT | PROLINE-RICH PROTEIN MP-3 |
| 7981 | 21030 |  | 0.58 | 7.3E-02 | BF316067.1 | EST_HUMAN | 601896047F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4125515 5' |
| 8361 | 21442 |  | 1.36 | 7.3E-02 | 7662107 | NT | Homo sapiens KIAA0424 protein (KIAA0424), mRNA |
| 8596 | 21677 | 35214 | 0.5 | 7.3E-02 | Y10887.2 | NT | Mus musculus cdh5 gene, exon 1, partial |
| 9411 | 22485 |  | 1.17 | 7.3E-02 | AB011090.1 | NT | Homo sapiens mRNA for KIAA0518 protein, partial cds |
| 11492 | 19744 | 33126 | 1.78 | 7.3E-02 | AA779977.1 | EST_HUMAN | zj24a02.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:451178 3' similar to gb:L02426 26S PROTEASE SUBUNIT 4 (HUMAN); |
| 122 | 13352 | 26382 | 0.6 | 7.2E-02 | AE000882.1 | NT | Methanobacterium thermoautotrophicum from bases 1029155 to 1039934 (section 88 of 148) of the complete genome |
| 122 | 13352 | 26383 | 0.6 | 7.2E-02 | AE000882.1 | NT | Methanobacterium thermoautotrophicum from bases 1029155 to 1039934 (section 88 of 148) of the complete genome |
| 1505 | 14658 | 27739 | 2.6 | 7.2E-02 | AL163301.2 | NT | Homo sapiens chromosome 21 segment HS21C101 |
| 1505 | 14658 | 27740 | 2.6 | 7.2E-02 | AL163301.2 | NT | Homo sapiens chromosome 21 segment HS21C101 |
| 2614 | 15738 |  | 3.34 | 7.2E-02 | U14794.1 | NT | Human immunodeficiency virus type 1 isolate 26 reverse transcriptase (pol) gene, internal fragment, partial cds |
| 3991 | 17148 | 30154 | 0.63 | 7.2E-02 | AW298322.1 | EST_HUMAN | UI-H-BW0-ajl-a-05-0-UI.s1 NCI_CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2732049 3' |

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## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4465 | 17605 | 30583 | 3.07 | 7.2E-02 | BF572307.1 | EST_HUMAN | 602077757F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4251950 5' |
| 5402 | 18604 | 31576 | 2.73 | 7.2E-02 | U67531.1 | NT | Methanococcus jannaschii section 73 of 150 of the complete genome |
| 5403 | 18605 | 31577 | 8.76 | 7.2E-02 | P11120 | SWISSPROT | CALMODULIN |
| 6244 | 19418 |  | 1.11 | 7.2E-02 | BF217596.1 | EST_HUMAN | 601883905F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4096224 5' |
| 7318 | 20400 | 33863 | 1.32 | 7.2E-02 | BF216086.1 | EST_HUMAN | 601883558F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4095710 5' |
| 7335 | 20416 | 33878 | 0.7 | 7.2E-02 | AF221126.1 | NT | Streptococcus pneumoniae putative response regulator (zmpR), putative histidine kinase (zmpS), and putative zinc metalloprotease (zmpB) genes, complete cds |
| 7359 | 20438 |  | 1.53 | 7.2E-02 | 5834897 | NT | Strongylocentrotus purpuratus mitochondrion, complete genome |
| 8382 | 21463 | 34987 | 0.6 | 7.2E-02 | P05143 | SWISSPROT | PROLINE-RICH PROTEIN MP-3 |
| 8382 | 21463 | 34988 | 0.6 | 7.2E-02 | P05143 | SWISSPROT | PROLINE-RICH PROTEIN MP-3 |
| 9264 | 22341 |  | 0.57 | 7.2E-02 | Y17217.1 | NT | Lactococcus lactis cspE gene |
| 9775 | 22815 |  | 0.51 | 7.2E-02 | X16349.1 | NT | Human gene for sex hormone-binding globulin (SHBG) |
| 9811 | 22851 | 36430 | 2.19 | 7.2E-02 | AV712452.1 | EST_HUMAN | AV712452 DCA Homo sapiens cDNA clone DCAAUG01 5' |
| 9961 | 23000 | 36596 | 4.88 | 7.2E-02 | L14561.1 | NT | Homo sapiens plasma membrane calcium ATPase isoform 1 (ATP2B1) gene, alternative splice products, partial cds |
| 10118 | 23166 | 36754 | 0.96 | 7.2E-02 | BF125399.1 | EST_HUMAN | 601763523F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:4026436 5' |
| 10206 | 23242 | 36833 | 2.34 | 7.2E-02 | AW873187.1 | EST_HUMAN | hq24f11.x1 NCI_CGAP_Adr1 Homo sapiens cDNA clone IMAGE:3120333 3' similar to TR:Q9Z340 Q9Z340 ATYPICAL PKC SPECIFIC BINDING PROTEIN. ; |
| 10395 | 23430 | 37037 | 0.8 | 7.2E-02 | AA768204.1 | EST_HUMAN | oa62c07.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1316844 3' |
| 10560 | 23595 | 37201 | 2.15 | 7.2E-02 | U82695.2 | NT | Homo sapiens zinc finger protein 92 (ZFP92), expressed-Xq28STS protein (XQ28ORF), and biglycan (BGN) genes, complete cds; and plasma membrane calcium ATPase isoform 3 (PMCA3) gene, partial cds |
| 10692 | 23725 | 37331 | 5.57 | 7.2E-02 | BE565003.1 | EST_HUMAN | 601343926F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3685951 5' |
| 10716 | 23749 |  | 3.47 | 7.2E-02 | BE539214.1 | EST_HUMAN | 601065194F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3451559 5' |
| 10837 | 23870 | 37492 | 0.55 | 7.2E-02 | AA706897.1 | EST_HUMAN | zj28h05.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:451641 3' |
| 11163 | 24224 | 37853 | 4.14 | 7.2E-02 | AF049874.1 | NT | Rattus norvegicus bHLH transcription factor Mist1 (Mist1) gene, complete cds |
| 12316 | 25230 | 32104 | 2.12 | 7.2E-02 | AA773696.1 | EST_HUMAN | af81a04.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1048398 5' |
| 12350 | 25253 |  | 3.83 | 7.2E-02 | AJ230796.1 | EST_HUMAN | AJ230796 Homo sapiens library (Seranski P) Homo sapiens cDNA clone PS13D5 3' |
| 12411 | 25290 |  | 2.05 | 7.2E-02 | AA584465.1 | EST_HUMAN | no05h08.s1 NCI_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1099839 3' |
| 12474 | 25327 |  | 4.23 | 7.2E-02 | U82828.1 | NT | Homo sapiens ataxia telangiectasia (ATM) gene, complete cds |
| 12488 | 25937 |  | 7.37 | 7.2E-02 | AW900962.1 | EST_HUMAN | CM4-NN1009-200300-116-c11 NN1009 Homo sapiens cDNA |
| 13048 | 25687 |  | 1.63 | 7.2E-02 | AA401779.1 | EST_HUMAN | zt57c12.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:726454 5' |
| 1953 | 15098 | 28197 | 2.05 | 7.1E-02 | L02290.1 | NT | Human immunodeficiency virus type 1 (D9) proviral structural capsid protein (gag) gene, partial cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2366 | 15497 | 28623 | 6.8 | 7.1E-02 | BF208802.1 | EST_HUMAN | 601872281F1 NIH_MGC_63 Homo sapiens cDNA clone IMAGE:4092981 5' |
| 8091 | 21173 | 34687 | 1.06 | 7.1E-02 | AI125264.1 | EST_HUMAN | qd92a10.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1736922 3' |
| 10866 | 23898 | 37521 | 0.53 | 7.1E-02 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 12193 | 25150 |  | 6.46 | 7.1E-02 | BE304764.1 | EST_HUMAN | 601143974F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:3051234 5' |
| 541 | 13734 | 26758 | 1.4 | 7.0E-02 | Q07092 | SWISSPROT | COLLAGEN ALPHA 1(XVI) CHAIN PRECURSOR |
| 1529 | 14682 |  | 1.28 | 7.0E-02 | X96677.1 | NT | M.artiellia Mtcut-1 gene |
| 1801 | 14960 | 28044 | 1.16 | 7.0E-02 | AA056343.1 | EST_HUMAN | zl66f04.s1 Stratagene colon (#937204) Homo sapiens cDNA clone IMAGE:509599 3' |
| 3095 | 16271 | 29286 | 2.02 | 7.0E-02 | AW138152.1 | EST_HUMAN | UI-H-BI1-acy-c-07-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2716020 3' |
| 4004 | 17161 | 30167 | 0.65 | 7.0E-02 | AA815438.1 | EST_HUMAN | ai65a12.s1 Soares_testis_NHT Homo sapiens cDNA clone 1376678 3' similar to gb:K03002 60S RIBOSOMAL PROTEIN L32 (HUMAN); |
| 4155 | 17307 | 30301 | 1.19 | 7.0E-02 | BE070264.1 | EST_HUMAN | QV4-BT0407-280100-090-e10 BT0407 Homo sapiens cDNA |
| 4268 | 17403 |  | 1.14 | 7.0E-02 | AW792962.1 | EST_HUMAN | CM0-UM0001-060300-270-c12 UM0001 Homo sapiens cDNA |
| 4330 | 17473 | 30458 | 1.19 | 7.0E-02 | AF077821.1 | NT | Canis familiaris inducible nitric oxide synthase mRNA, complete cds |
| 5045 | 18173 | 31150 | 7.97 | 7.0E-02 | BF381987.1 | EST_HUMAN | 601816291F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4050071 5' |
| 5493 | 18692 |  | 0.92 | 7.0E-02 | Y09143.2 | NT | Lumbricus rubellus mRNA for cyclophilin B |
| 7560 | 20632 | 34107 | 0.9 | 7.0E-02 | AV689285.1 | EST_HUMAN | AV689285 GKC Homo sapiens cDNA clone GKCCAE06 5' |
| 7782 | 20838 | 34331 | 0.68 | 7.0E-02 | Y19187.1 | NT | Gallus gallus mRNA for partial aczonin, XL spliced variant (acz gene) |
| 9299 | 22375 | 35926 | 1.24 | 7.0E-02 | 9628113 | NT | African swine fever virus, complete genome |
| 9797 | 22837 | 36415 | 1.31 | 7.0E-02 | K02901.1 | NT | Rat Ig germline epsilon H-chain gene C-region, 3' end |
| 10158 | 23195 | 36791 | 0.88 | 7.0E-02 | U27266.1 | NT | Human myosin binding protein H (MyBP-H) gene, complete cds |
| 11654 | 24733 | 38424 | 2.6 | 7.0E-02 | AA724295.1 | EST_HUMAN | ah99a05.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1327184 3' similar to gb:L14837 TIGHT JUNCTION PROTEIN ZO-1 (HUMAN); |
| 13022 | 25673 | 31958 | 1.2 | 7.0E-02 | 11421638 | NT | Homo sapiens hypothetical protein FLJ20116 (FLJ20116), mRNA |
| 527 | 13720 | 26744 | 7.08 | 6.9E-02 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 627 | 13720 | 26745 | 7.08 | 6.9E-02 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 1364 | 14518 |  | 1.58 | 6.9E-02 | 4507968 | NT | Homo sapiens regulator of Gz-selective protein signaling (ZGAP1) mRNA, and translated products |
| 3893 | 17052 | 30051 | 1.34 | 6.9E-02 | Q06364 | SWISSPROT | 26S PROTEASOME REGULATORY SUBUNIT S3 (NUCLEAR ANTIGEN 21D7) |
| 3893 | 17052 | 30052 | 1.34 | 6.9E-02 | Q06364 | SWISSPROT | 26S PROTEASOME REGULATORY SUBUNIT S3 (NUCLEAR ANTIGEN 21D7) |
| 5302 | 18419 | 31389 | 4.11 | 6.9E-02 | Z79163.1 | NT | H.sapiens flow-sorted chromosome 6 HindIII fragment, SC6pA24F7 |
| 5316 | 18433 | 31403 | 0.83 | 6.9E-02 | M34956.1 | NT | M.hyorhinis 115 kDa protein (p115) gene, complete cds |
| 7793 | 20849 |  | 0.87 | 6.9E-02 | AF164967.1 | NT | Canine distemper virus strain A75/17, complete genome |
| 8242 | 21324 |  | 1.14 | 6.9E-02 | U12022.1 | NT | Human calmodulin (CALM1) gene, exons 2,3,4,5 and 6, and complete cds |
| 8750 | 21829 | 35366 | 1.01 | 6.9E-02 | BE567435.1 | EST_HUMAN | 601340661F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3683030 5' |

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## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8750 | 21829 | 35367 | 1.01 | 6.9E-02 | BE567435.1 | EST_HUMAN | 601340661F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3683030 5' |
| 9320 | 22396 | 35949 | 0.67 | 6.9E-02 | U22967.1 | NT | Barbarie duck parvovirus REP protein (rep) and three capsid protein VP (vp) genes, complete cds |
| 11374 | 24435 | 38092 | 1.46 | 6.9E-02 | S81752.1 | NT | DPH2L=candidate tumor suppressor gene {ovarian cancer critical region of deletion} [human, 9 week fetal and placental tissues, mRNA, 2233 nt] |
| 11374 | 24435 | 38093 | 1.46 | 6.9E-02 | S81752.1 | NT | DPH2L=candidate tumor suppressor gene {ovarian cancer critical region of deletion} [human, 9 week fetal and placental tissues, mRNA, 2233 nt] |
| 12346 | 25251 | | 10.94 | 6.9E-02 | X74315.1 | NT | X.laevis XFD2 mRNA for fork head protein |
| 12524 | 25357 | | 1.56 | 6.9E-02 | P44621 | SWISSPROT | PROTEIN TRANSPORT PROTEIN HOFC HOMOLOG |
| 12770 | 25513 | | 3.37 | 6.9E-02 | AF195953.1 | NT | Homo sapiens membrane-bound aminopeptidase P (XNPEP2) gene, complete cds |
| 1932 | 15075 | 28177 | 1.18 | 6.8E-02 | AA496759.1 | EST_HUMAN | ae30f02.r1 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:897339 5' similar to gb:M22382 MITOCHONDRIAL MATRIX PROTEIN P1 PRECURSOR (HUMAN); |
| 1932 | 15075 | 28178 | 1.18 | 6.8E-02 | AA496759.1 | EST_HUMAN | ae30f02.r1 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:897339 5' similar to gb:M22382 MITOCHONDRIAL MATRIX PROTEIN P1 PRECURSOR (HUMAN); |
| 1956 | 15099 | 28199 | 3.85 | 6.8E-02 | AF156673.1 | NT | Homo sapiens putative hepatic transcription factor (WBSCR14) gene, complete cds |
| 4675 | 17810 | | 0.64 | 6.8E-02 | BE141076.1 | EST_HUMAN | MR0-HT0069-071099-001-c05 HT0069 Homo sapiens cDNA |
| 6758 | 19914 | | 0.65 | 6.8E-02 | P20792 | SWISSPROT | CELL-SURFACE RECEPTOR DAF-1 PRECURSOR |
| 7040 | 20093 | | 0.99 | 6.8E-02 | BE061890.1 | EST_HUMAN | RC1-BT0254-090300-017-d09 BT0254 Homo sapiens cDNA |
| 7432 | 20509 | 33981 | 8.22 | 6.8E-02 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 7861 | 20915 | 34420 | 0.6 | 6.8E-02 | U16856.1 | NT | Dictyostelium discoideum myosin heavy chain kinase A (MHCK A) mRNA, complete cds |
| 8483 | 21564 | 35099 | 6.03 | 6.8E-02 | AJ248287.1 | NT | Pyrococcus abyssi complete genome; segment 5/6 |
| 8483 | 21564 | 35100 | 6.03 | 6.8E-02 | AJ248287.1 | NT | Pyrococcus abyssi complete genome; segment 5/6 |
| 12141 | 26155 | | 1.47 | 6.8E-02 | T03214.1 | EST_HUMAN | FB4A8 Fetal brain, Stratagene Homo sapiens cDNA clone FB4A8 3'end similar to LINE-1 |
| 12276 | 25206 | | 1.64 | 6.8E-02 | AA758014.1 | EST_HUMAN | ah67f05.s1 Soares_testis_NHT Homo sapiens cDNA clone 1320705 3' |
| 12906 | 25599 | | 1.34 | 6.8E-02 | AW975839.1 | EST_HUMAN | EST387948 MAGE resequences, MAGN Homo sapiens cDNA |
| 12972 | 25632 | | 2.3 | 6.8E-02 | 9910585 | NT | Mus musculus latent TGF beta binding protein (Tgfb), mRNA |
| 13203 | 26091 | 31660 | 1.24 | 6.8E-02 | 6978885 | NT | Rattus norvegicus Growth factor independent-1 (Gfi1), mRNA |
| 1558 | 14711 | | 2.71 | 6.7E-02 | AF115536.1 | NT | Oncorhynchus mykiss TAP1 protein (OnmyTAP1) mRNA, OnmyTAP1*01 allele, complete cds |
| 1942 | 15085 | 28186 | 2.17 | 6.7E-02 | AI220285.1 | EST_HUMAN | qg79e04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1841406 3' |
| 3811 | 16971 | 29973 | 4.48 | 6.7E-02 | P17278 | SWISSPROT | HOMEOBOX PROTEIN HOX-D4 (CHOX-A) |
| 4065 | 17221 | 30229 | 0.74 | 6.7E-02 | U53783.1 | NT | Cyprinus carpio Rap1b mRNA, complete cds |
| 4065 | 17221 | 30230 | 0.74 | 6.7E-02 | U53783.1 | NT | Cyprinus carpio Rap1b mRNA, complete cds |
| 7969 | 21019 | 34532 | 0.66 | 6.7E-02 | W57759.1 | EST_HUMAN | zd20g11.s1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:341252 3' similar to contains Alu repetitive element;contains element L1 repetitive element ; |
| 8034 | 21117 | 34635 | 0.74 | 6.7E-02 | X62695.1 | NT | H.sapiens DNA for cGMP phosphodiesterase (exons 4-22) |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ .ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8034 | 21117 | 34636 | 0.74 | 6.7E-02 | X62695.1 | NT | H.sapiens DNA for cGMP phosphodiesterase (exons 4-22) |
| 8633 | 21713 | 35250 | 0.73 | 6.7E-02 | AW082688.1 | EST_HUMAN | xb61c11.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2580788 3' |
| 9800 | 22840 | 36417 | 0.59 | 6.7E-02 | AW137359.1 | EST_HUMAN | UI-H-BI1-acr-g-01-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2715433 3' |
| 9800 | 22840 | 36418 | 0.59 | 6.7E-02 | AW137359.1 | EST_HUMAN | UI-H-BI1-acr-g-01-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2715433 3' |
| 1379 | 14534 | 27608 | 0.98 | 6.6E-02 | AI735509.1 | EST_HUMAN | at12e09.x1 Barstead aorta HPLRB6 Homo sapiens cDNA clone IMAGE:2354920 3' similar to SW:LIN1_NYCCO P08548 LINE-1 REVERSE TRANSCRIPTASE HOMOLOG. ; |
| 2252 | 15385 | 28513 | 3.73 | 6.6E-02 | AJ289241.1 | NT | Mus musculus Capn12 gene for calpain 12, exons 1-21, three alternative transcipts |
| 3552 | 16717 | 29731 | 12.38 | 6.6E-02 | R64306.1 | EST_HUMAN | yi18b10.s1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:139579 3' |
| 3567 | 16732 | 29748 | 3.11 | 6.6E-02 | 7108357 | NT | Homo sapiens mesothelin (MSLN), transcript variant 1, mRNA |
| 3567 | 16732 | 29749 | 3.11 | 6.6E-02 | 7108357 | NT | Homo sapiens mesothelin (MSLN), transcript variant 1, mRNA |
| 4191 | 17341 | 30334 | 1.61 | 6.6E-02 | AF260225.1 | NT | Homo sapiens TESTIN 2 and TESTIN 3 genes, complete cds, alternatively spliced |
| 5093 | 18221 | 31191 | 12.07 | 6.6E-02 | Q61703 | SWISSPROT | INTER-ALPHA-TRYPSIN INHIBITOR HEAVY CHAIN H2 PRECURSOR (ITI HEAVY CHAIN H2) |
| 5093 | 18221 | 31192 | 12.07 | 6.6E-02 | Q61703 | SWISSPROT | INTER-ALPHA-TRYPSIN INHIBITOR HEAVY CHAIN H2 PRECURSOR (ITI HEAVY CHAIN H2) |
| 5130 | 18255 | 31220 | 0.64 | 6.6E-02 | AA393244.1 | EST_HUMAN | zt74a07.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:728052 5' similar to gb:L04270 TUMOR NECROSIS FACTOR RECEPTOR 2 RELATED PROTEIN PRECURSOR (HUMAN); |
| 5130 | 18265 | 31221 | 0.64 | 6.6E-02 | AA393244.1 | EST_HUMAN | zt74a07.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:728052 5' similar to gb:L04270 TUMOR NECROSIS FACTOR RECEPTOR 2 RELATED PROTEIN PRECURSOR (HUMAN); |
| 6714 | 19872 | 33264 | 3.92 | 6.6E-02 | X06411.1 | NT | P.vulgaris mRNA for chalcone synthase |
| 6749 | 19905 | 33298 | 0.62 | 6.6E-02 | P25159 | SWISSPROT | MATERNAL EFFECT PROTEIN STAUFEN |
| 6749 | 19905 | 33299 | 0.62 | 6.6E-02 | P25159 | SWISSPROT | MATERNAL EFFECT PROTEIN STAUFEN |
| 6937 | 19905 | 33298 | 0.68 | 6.6E-02 | P25159 | SWISSPROT | MATERNAL EFFECT PROTEIN STAUFEN |
| 6937 | 19905 | 33299 | 0.68 | 6.6E-02 | P25159 | SWISSPROT | MATERNAL EFFECT PROTEIN STAUFEN |
| 8133 | 21215 | 34736 | 1.51 | 6.6E-02 | AF052572.1 | NT | Homo sapiens chemokine receptor CXCR4 gene, promoter region and complete cds |
| 8669 | 21749 | 35287 | 0.77 | 6.6E-02 | AF006055.1 | NT | Dictyostelium discoideum darlin (darA) gene, complete cds |
| 8979 | 22058 |  | 0.53 | 6.6E-02 | O60673 | SWISSPROT | DNA POLYMERASE ZETA CATALYTIC SUBUNIT (HREV3) |
| 9121 | 22200 | 35741 | 1.28 | 6.6E-02 | 9629198 | NT | Human respiratory syncytial virus, complete genome |
| 9121 | 22200 | 35742 | 1.28 | 6.6E-02 | 9629198 | NT | Human respiratory syncytial virus, complete genome |
| 10157 | 23194 | 36790 | 0.54 | 6.6E-02 | AI458752.1 | EST_HUMAN | tj97g06.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2149498 3' |
| 10292 | 23327 | 36930 | 1.5 | 6.6E-02 | Y07848.1 | NT | Homo sapiens EWS, gar22, rrp22 and bam22 genes |
| 10327 | 23362 |  | 0.65 | 6.6E-02 | 11430559 | NT | Homo sapiens vinculin (VCL), mRNA |
| 10710 | 23743 | 37349 | 0.49 | 6.6E-02 | BF694659.1 | EST_HUMAN | 602080608F2 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4245336 5' |
| 11205 | 24274 | 37911 | 4.95 | 6.6E-02 | BF374248.1 | EST_HUMAN | MR1-SN0064-010600-006-a12 SN0064 Homo sapiens cDNA |
| 12761 | 25505 |  | 4.64 | 6.6E-02 | 9937991 | NT | Mus musculus DIPB gene (Dipb), mRNA |
| 13124 | 25733 |  | 1.26 | 6.6E-02 | AF167430.1 | NT | Rattus norvegicus cytochrome P450 2E1 (CYP2E1) gene, 5' flanking region |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 595 | 13785 | 26805 | 1.57 | 6.5E-02 | BF027639.1 | EST_HUMAN | 601671046F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3954178 5' |
| 1011 | 14183 | 27245 | 1.3 | 6.5E-02 | 7706068 | NT | Homo sapiens E2F-like protein (LOC51270), mRNA |
| 1422 | 14576 | 27649 | 3.38 | 6.5E-02 | U47624.1 | NT | Xenopus laevis alpha(E)-catenin mRNA, complete cds |
| 1773 | 14922 | 28016 | 2.04 | 6.5E-02 | AE000764.1 | NT | Aquifex aeolicus section 96 of 109 of the complete genome |
| 5676 | 18870 | 32156 | 2.07 | 6.5E-02 | AA443991.1 | EST_HUMAN | zv46h12.s1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:756743 3' similar to gb:M26038 HLA CLASS II HISTOCOMPATIBILITY ANTIGEN, DR-5 BETA CHAIN (HUMAN); |
| 6673 | 19832 | 33221 | 0.73 | 6.5E-02 | BF665340.1 | EST_HUMAN | 602118687F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4276029 5' |
| 7113 | 18539 | 31496 | 1.02 | 6.5E-02 | U22661.1 | NT | Azotobacter vinelandii ATCC 9046 negative regulator MucB (mucB) gene, partial cds |
| 10147 | 23185 | 36781 | 0.57 | 6.5E-02 | BE963200.2 | EST_HUMAN | 601656817R1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3865637 3' |
| 10147 | 23185 | 36782 | 0.57 | 6.5E-02 | BE963200.2 | EST_HUMAN | 601656817R1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3865637 3' |
| 10683 | 23717 | 37323 | 0.81 | 6.5E-02 | BF106300.1 | EST_HUMAN | 601823511F1 NIH_MGC_77 Homo sapiens cDNA clone IMAGE:4043138 5' |
| 10875 | 23960 | 37589 | 4.45 | 6.5E-02 | AA195648.1 | EST_HUMAN | zr32g05.s1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:665144 3' |
| 12163 | 25129 |  | 3.78 | 6.5E-02 | M21496.1 | NT | Rabbit microsomal epoxide hydrolase |
| 12533 | 25363 |  | 3.67 | 6.5E-02 | AF102993.1 | NT | Nectria haematococca kinesin related protein 2 (KRP2) gene, complete cds |
| 589 | 13780 | 26799 | 1.49 | 6.4E-02 | X94549.1 | NT | A.carterae precursor of peridinin-chlorophylla-protein (PCP) gene |
| 1770 | 14919 | 28013 | 0.99 | 6.4E-02 | AE001777.1 | NT | Thermotoga maritima section 89 of 136 of the complete genome |
| 1770 | 14919 | 28014 | 0.99 | 6.4E-02 | AE001777.1 | NT | Thermotoga maritima section 89 of 136 of the complete genome |
| 5566 | 18763 | 31803 | 1.11 | 6.4E-02 | AI191956.1 | EST_HUMAN | qe07b01.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1738249 3' similar to contains LTR8.b3 LTR8 repetitive element ; |
| 6239 | 19413 | 32761 | 2.64 | 6.4E-02 | AF052733.1 | NT | Heterodera glycines beta-1,4-endoglucanase-1 precursor (HG-eng-1) gene, complete cds |
| 6239 | 19413 | 32762 | 2.64 | 6.4E-02 | AF052733.1 | NT | Heterodera glycines beta-1,4-endoglucanase-1 precursor (HG-eng-1) gene, complete cds |
| 6532 | 19696 | 33069 | 1.23 | 6.4E-02 | AI672896.1 | EST_HUMAN | we73g12.x1 Soares_Dieckgraefe_colon_NHCD Homo sapiens cDNA clone IMAGE:2346790 3' |
| 6957 | 20270 | 33708 | 4.11 | 6.4E-02 | BE974448.1 | EST_HUMAN | 601680426R2 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3950503 3' |
| 8631 | 21612 |  | 2.47 | 6.4E-02 | 6753323 | NT | Mus musculus chaperonin subunit 6a (zeta) (Cct6a), mRNA |
| 8865 | 21944 | 35478 | 4.17 | 6.4E-02 | AA093305.1 | EST_HUMAN | k1419.seq.F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA 5' |
| 9327 | 22403 | 35955 | 0.98 | 6.4E-02 | AF150195.1 | EST_HUMAN | AF150195 Human mRNA from cd34+ stem cells Homo sapiens cDNA clone CBDAIA10 |
| 9785 | 22826 |  | 0.61 | 6.4E-02 | BE834083.1 | EST_HUMAN | RC1-OT0083-150600-014-g06 OT0083 Homo sapiens cDNA |
| 9918 | 22958 | 36545 | 1.87 | 6.4E-02 | AB011126.1 | NT | Homo sapiens mRNA for KIAA0554 protein, partial cds |
| 10468 | 23503 | 37116 | 0.45 | 6.4E-02 | AF087150.1 | NT | Homo sapiens DNA topoisomerase II beta (TOP2B) gene, exons 16, 17, and 18 |
| 10468 | 23503 | 37117 | 0.45 | 6.4E-02 | AF087150.1 | NT | Homo sapiens DNA topoisomerase II beta (TOP2B) gene, exons 16, 17, and 18 |
| 12008 | 24993 | 38697 | 1.86 | 6.4E-02 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, RoRet gene, and sodium phosphate transporter (NPT3) gene, complete cds |

### Table 4
### Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 12008 | 24993 | 38698 | 1.86 | 6.4E-02 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, RoRet gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| 12427 | 26048 | | 2.7 | 6.4E-02 | AF107890.1 | NT | Homo sapiens mucin 5B (MUC5B) gene, partial cds |
| 12479 | 25331 | 32056 | 2.61 | 6.4E-02 | AJ277174.1 | NT | Drosophila melanogaster mRNA for mod(mdg4)51.4 protein |
| 1793 | 14942 | 28035 | 2.61 | 6.3E-02 | AF109905.1 | NT | Mus musculus major histocompatibility locus class III regions Hsc70t gene, partial cds; smRNP, G7A, NG23, MutS homolog, CLCP, NG24, NG25, and NG26 genes, complete cds; and unknown genes |
| 3692 | 16854 | | 2.29 | 6.3E-02 | P37092 | SWISSPROT | HEAT SHOCK PROTEIN 70 HOMOLOG |
| 6264 | 19438 | 32785 | 1.12 | 6.3E-02 | BF210736.1 | EST_HUMAN | 601873316F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4097499 5' |
| 7391 | 20469 | | 1.64 | 6.3E-02 | X97869.1 | NT | H.sapiens gene encoding La autoantigen |
| 9491 | 22548 | 36111 | 0.99 | 6.3E-02 | AJ243916.1 | NT | Drosophila melanogaster Domina gene, exons 1-3 |
| 10218 | 23254 | 36843 | 3.52 | 6.3E-02 | AB010162.1 | NT | Hepatitis G virus RNA for polyprotein (NS5A region), partial cds, strain: CMR-152 |
| 10476 | 23513 | | 1.31 | 6.3E-02 | AV698070.1 | EST_HUMAN | AV698070 GKC Homo sapiens cDNA clone GKCAHE01 5' |
| 10954 | 19438 | 32785 | 2.36 | 6.3E-02 | BF210736.1 | EST_HUMAN | 601873316F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4097499 5' |
| 2549 | 15674 | 28797 | 1.04 | 6.2E-02 | AL161546.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 46 |
| 4365 | 17508 | 30489 | 4.22 | 6.2E-02 | AL161572.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 68 |
| 4458 | 17598 | | 1.03 | 6.2E-02 | AF271235.1 | NT | Rattus norvegicus differentiation-associated Na-dependent inorganic phosphate cotransporter (DNPI) mRNA, complete cds |
| 4705 | 17840 | | 5.66 | 6.2E-02 | Q62191 | SWISSPROT | 52 KD RO PROTEIN (SJOGREN SYNDROME TYPE A ANTIGEN (SS-A)) (RO(SS-A)) (RO52) |
| 6935 | 20250 | 33685 | 0.78 | 6.2E-02 | D49530.1 | NT | Spirulina platensis DNA for adenylate cyclase, complete cds. |
| 7805 | 20861 | 34354 | 0.88 | 6.2E-02 | U41453.1 | NT | Rattus norvegicus PKC binding protein and substrate mRNA, complete cds |
| 8016 | 21067 | | 0.58 | 6.2E-02 | AL161545.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 45 |
| 9148 | 26225 | | 0.92 | 6.2E-02 | M61101.1 | NT | Porcine group C rotavirus (strain Cowden) outer membrane protein (VP7) mRNA, complete cds |
| 9544 | 22609 | 36177 | 0.47 | 6.2E-02 | AA778450.1 | EST_HUMAN | af20a06.s1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1032178 3' |
| 9681 | 22730 | 36300 | 1.19 | 6.2E-02 | 6677898 | NT | Mus musculus stromal cell derived factor receptor 2 (Sdfr2), mRNA |
| 11415 | 24476 | 38140 | 1.42 | 6.2E-02 | AF217490.1 | NT | Homo sapiens fragile 16D oxido reductase (FOR) gene, exons 8, 9, and partial cds |
| 11629 | 24709 | 38401 | 1.54 | 6.2E-02 | AJ242735.1 | NT | Meterhizium anisopliae mRNA for Chymotrypsin (chy1 gene) |
| 12263 | 26191 | | 3.63 | 6.2E-02 | AE000750.1 | NT | Aquifex aeolicus section 82 of 109 of the complete genome |
| 12617 | 25415 | | 1.24 | 6.2E-02 | BE793085.1 | EST_HUMAN | 601583773F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3937842 5' |
| 12703 | 25467 | 32024 | 3.61 | 6.2E-02 | BF112039.1 | EST_HUMAN | 7l37h08.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3523815 3' similar to TR:Q9Y4S6 Q9Y4S6 HYPOTHETICAL 30.3 KD PROTEIN. [1] ; |
| 266 | 13485 | 26516 | 3.63 | 6.1E-02 | D16471.1 | NT | Human mRNA, Xq terminal portion |
| 4099 | 17254 | | 2.85 | 6.1E-02 | U73326.1 | NT | Arabidopsis thaliana K+ inward rectifying channel protein (AtKC1) gene, complete cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6240 | 19414 | | 1.57 | 6.1E-02 | 4507070 | NT | Homo sapiens SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 3 (SMARCA3) mRNA |
| 8468 | 21539 | 35068 | 3.65 | 6.1E-02 | X99268.1 | NT | H.sapiens mRNA for B-HLH DNA binding protein |
| 8861 | 21940 | 35474 | 0.6 | 6.1E-02 | BE971853.1 | EST_HUMAN | 601651086R1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:3934604 3' |
| 8861 | 21940 | 35475 | 0.6 | 6.1E-02 | BE971853.1 | EST_HUMAN | 601651086R1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:3934604 3' |
| 10967 | 24048 | 37681 | 3.9 | 6.1E-02 | BE179543.1 | EST_HUMAN | IL3-HT0618-110500-136-C06 HT0618 Homo sapiens cDNA |
| 12134 | 25114 | 38818 | 1.66 | 6.1E-02 | AB025333.1 | NT | Eptatretus burgeri mRNA for RNA polymerase III largest subunit, partial cds |
| 12218 | 26093 | | 30.03 | 6.1E-02 | X70969.1 | NT | S.japonicum mRNA for serine-enzyme |
| 12836 | 25957 | | 1.58 | 6.1E-02 | AI886611.1 | EST_HUMAN | tz59f07.x1 NCI_CGAP_Ov35 Homo sapiens cDNA clone IMAGE:2292801 3' |
| 12993 | 25645 | | 6.43 | 6.1E-02 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 1291 | 14447 | 27513 | 1.58 | 6.0E-02 | AE001777.1 | NT | Thermotoga maritima section 89 of 136 of the complete genome |
| 2740 | 15857 | 28969 | 1.17 | 6.0E-02 | AW968848.1 | EST_HUMAN | EST380924 MAGE resequences, MAGJ Homo sapiens cDNA |
| 2832 | 15946 | | 1.43 | 6.0E-02 | AB031289.1 | NT | Mesocestoides corti mitochondrial DNA, NADH dehydrogenase subunit 4, tRNA-Gln, tRNA-Phe, tRNA-Met, ATPase subunit 6, and NADH dehydrogenase subunit 2 |
| 3002 | 13336 | 26362 | 1.53 | 6.0E-02 | AA188730.1 | EST_HUMAN | zp78c04.r1 Stratagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:626310 5' |
| 3002 | 13335 | 26363 | 1.53 | 6.0E-02 | AA188730.1 | EST_HUMAN | zp78c04.r1 Stratagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:626310 5' |
| 3301 | 16475 | 29496 | 2.07 | 6.0E-02 | AA372376.1 | EST_HUMAN | EST84266 Colon adenocarcinoma IV Homo sapiens cDNA 5' end similar to tissue-specific protein |
| 3301 | 16475 | 29497 | 2.07 | 6.0E-02 | AA372376.1 | EST_HUMAN | EST84266 Colon adenocarcinoma IV Homo sapiens cDNA 5' end similar to tissue-specific protein |
| 3725 | 16886 | | 0.76 | 6.0E-02 | BE964443.2 | EST_HUMAN | 601658150R1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3876060 3' |
| 5514 | 18712 | | 1.01 | 6.0E-02 | AW370211.1 | EST_HUMAN | RC3-BT0253-011199-013-b04 BT0253 Homo sapiens cDNA |
| 6345 | 19515 | 32872 | 1 | 6.0E-02 | AI807537.1 | EST_HUMAN | wf48h05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2358873 3' similar to contains L1.t1 L1 L1 repetitive element ; |
| 7127 | 18553 | 31467 | 2.86 | 6.0E-02 | 5174698 | NT | Homo sapiens stimulated trans-acting factor (50 kDa) (STAF50) mRNA |
| 7127 | 18553 | 31468 | 2.86 | 6.0E-02 | 5174698 | NT | Homo sapiens stimulated trans-acting factor (50 kDa) (STAF50) mRNA |
| 7338 | 20418 | 33880 | 2.37 | 6.0E-02 | BF382349.1 | EST_HUMAN | 601815274F2 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4049226 5' |
| 7857 | 20912 | 34417 | 1.78 | 6.0E-02 | AI204275.1 | EST_HUMAN | qf58b08.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1754199 3' |
| 8617 | 21697 | | 0.46 | 6.0E-02 | 11466495 | NT | Reclinomonas americana mitochondrion, complete genome |
| 9472 | 22529 | 36092 | 1.29 | 6.0E-02 | AI623167.1 | EST_HUMAN | ts78a06.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2237362 3' |
| 9472 | 22529 | 36093 | 1.29 | 6.0E-02 | AI623167.1 | EST_HUMAN | ts78a06.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2237362 3' |
| 9606 | 22661 | 36233 | 2 | 6.0E-02 | AJ245365.1 | NT | Acipenser baeri partial IGLV gene for immunoglobulin light chain variable region, exons 1-2 |
| 9606 | 22661 | 36234 | 2 | 6.0E-02 | AJ245365.1 | NT | Acipenser baeri partial IGLV gene for immunoglobulin light chain variable region, exons 1-2 |
| 10109 | 23147 | 36746 | 0.72 | 6.0E-02 | AA309797.1 | EST_HUMAN | EST180654 Jurkat T-cells V Homo sapiens cDNA 5' end similar to similar to heat shock protein 1, 60 kDa-like |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10109 | 23147 | 36747 | 0.72 | 6.0E-02 | AA309797.1 | EST_HUMAN | EST180654 Jurkat T-cells V Homo sapiens cDNA 5' end similar to similar to heat shock protein 1, 60 kDa-like |
| 11618 | 24669 | | 1.42 | 6.0E-02 | AA128386.1 | EST_HUMAN | zn87c08.r1 Stratagene lung carcinoma 937218 Homo sapiens cDNA clone IMAGE:565166 5' similar to gb:X69181 60S RIBOSOMAL PROTEIN L31 (HUMAN); |
| 12921 | 25606 | | 5.12 | 6.0E-02 | AI809273.1 | EST_HUMAN | wf69h03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2360885 3' similar to TR:O60298 O60298 KIAA0551 PROTEIN ; |
| 239 | 13461 | 26489 | 5.86 | 5.9E-02 | AW934719.1 | EST_HUMAN | RC1-DT0001-290100-012-e10 DT0001 Homo sapiens cDNA |
| 3048 | 16224 | 29246 | 2.77 | 5.9E-02 | AF190269.1 | NT | Mus musculus p53 tumor suppressor gene, exon 10 and 11, partial cds; alternatively spliced |
| 4864 | 17997 | | 0.77 | 5.9E-02 | AF166111.1 | NT | Duck parvovirus strain 90-2193 capsid protein (VP3) gene, partial cds |
| 8817 | 21896 | 35435 | 2 | 5.9E-02 | 9055249 | NT | Mus musculus iroquois related homeobox 5 (Drosophila) (Irx5), mRNA |
| 9650 | 21093 | | 0.97 | 5.9E-02 | BF242748.1 | EST_HUMAN | 601877609F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4105994 5' |
| 11026 | 24104 | | 7.39 | 5.9E-02 | 6679870 | NT | Mus musculus follistatin-like (Fstl), mRNA |
| 11835 | 24824 | | 1.35 | 5.9E-02 | BF572539.1 | EST_HUMAN | 602076548F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4243834 5' |
| 11850 | 24839 | | 1.37 | 5.9E-02 | AJ240733.1 | NT | Gallus gallus HKC9 telomere junction |
| 956 | 14129 | | 6 | 5.8E-02 | D90110.1 | NT | Thiobacillus ferrooxidans merC, merA genes and URF-1 |
| 1693 | 14845 | 27929 | 0.97 | 5.8E-02 | Q61768 | SWISSPROT | KINESIN HEAVY CHAIN (UBIQUITOUS KINESIN HEAVY CHAIN) (UKHC) |
| 3753 | 16914 | 29917 | 1.68 | 5.8E-02 | AE001776.1 | NT | Thermotoga maritima section 87 of 136 of the complete genome |
| 4474 | 17614 | 30593 | 6.79 | 5.8E-02 | AW051927.1 | EST_HUMAN | wx24c02.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2544578 3' |
| 4474 | 17614 | 30594 | 6.79 | 5.8E-02 | AW051927.1 | EST_HUMAN | wx24c02.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2544578 3' |
| 4669 | 17804 | 30792 | 4.64 | 5.8E-02 | AI247505.1 | EST_HUMAN | qh56f01.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1848697 3' similar to gb:M13142 COAGULATION FACTOR XI PRECURSOR (HUMAN); |
| 4669 | 17804 | 30793 | 4.64 | 5.8E-02 | AI247505.1 | EST_HUMAN | qh56f01.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1848697 3' similar to gb:M13142 COAGULATION FACTOR XI PRECURSOR (HUMAN); |
| 4696 | 17831 | | 2.1 | 5.8E-02 | AF096264.1 | NT | Gallus gallus tyrosine kinase JAK1 (JAK1) mRNA, complete cds |
| 7855 | 20910 | 34414 | 2.76 | 5.8E-02 | M99150.1 | NT | Human polymorphic microsatellite DNA |
| 7855 | 20910 | 34415 | 2.76 | 5.8E-02 | M99150.1 | NT | Human polymorphic microsatellite DNA |
| 8866 | 21945 | 35479 | 0.61 | 5.8E-02 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 12365 | 25261 | | 1.65 | 5.8E-02 | AF220177.1 | NT | Drosophila melanogaster male fruitless type-A (fru) mRNA, complete cds |
| 12681 | 26180 | | 4.65 | 5.8E-02 | AA604269.1 | EST_HUMAN | no75e11.s1 NCI_CGAP_AA1 Homo sapiens cDNA clone IMAGE:1112684 3' |
| 3123 | 16299 | 29312 | 1.14 | 5.7E-02 | AI081644.1 | EST_HUMAN | ou63b05.s1 NCI_CGAP_Br2 Homo sapiens cDNA clone IMAGE:1632465 3' similar to WP:C37A2.2 CE08611 ; |
| 3139 | 16315 | 29328 | 1.09 | 5.7E-02 | AF119117.1 | NT | Homo sapiens dopamine transporter (SLC6A3) gene, complete cds |
| 3902 | 17061 | 30060 | 2.3 | 5.7E-02 | AW966791.1 | EST_HUMAN | EST378865 MAGE resequences, MAGI Homo sapiens cDNA |
| 4807 | 17941 | | 0.95 | 5.7E-02 | M95099.1 | NT | Bos taurus lysozyme gene (cow 3), complete cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6000 | 19185 |  | 0.67 | 5.7E-02 | AF275948.1 | NT | Homo sapiens ABCA1 (ABCA1) gene, complete cds |
| 7630 | 20699 | 34175 | 0.68 | 5.7E-02 | BE871911.1 | EST_HUMAN | 601447937F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3851985 5' |
| 7630 | 20699 | 34176 | 0.68 | 5.7E-02 | BE871911.1 | EST_HUMAN | 601447937F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3851985 5' |
| 7710 | 20775 | 34260 | 0.72 | 5.7E-02 | D78003.1 | NT | Xenopus laevis mRNA for fourth component of complement, complete cds |
| 7710 | 20775 | 34261 | 0.72 | 5.7E-02 | D78003.1 | NT | Xenopus laevis mRNA for fourth component of complement, complete cds |
| 8349 | 21430 | 34954 | 1.45 | 5.7E-02 | AJ296090.1 | NT | Rattus norvegicus mRNA for potassium channel, alpha subunit (kv9.2 gene) |
| 10055 | 23093 | 36695 | 0.82 | 5.7E-02 | 6681260 | NT | Mus musculus ect2 oncogene (Ect2), mRNA |
| 11464 | 24523 | 38193 | 3.14 | 5.7E-02 | AI752685.1 | EST_HUMAN | cn18b09.y1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn18b09 random |
| 11464 | 24523 | 38194 | 3.14 | 5.7E-02 | AI752685.1 | EST_HUMAN | cn18b09.y1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn18b09 random |
| 11630 | 24710 |  | 1.66 | 5.7E-02 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 12586 | 25969 |  | 19.03 | 5.7E-02 | D50320.1 | NT | Pig DNA for SPAI-2, complete cds |
| 12769 | 25512 |  | 2.17 | 5.7E-02 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 12863 | 26042 |  | 3.04 | 5.7E-02 | AF217490.1 | NT | Homo sapiens fragile 16D oxido reductase (FOR) gene, exons 8, 9, and partial cds |
| 13012 | 26165 |  | 5.21 | 5.7E-02 | AF261280.1 | NT | Pan troglodytes apolipoprotein-E gene, complete cds |
| 13171 | 25759 | 31929 | 1.18 | 5.7E-02 | R48513.1 | EST_HUMAN | yj64d10.s1 Soares breast 2NbHBst Homo sapiens cDNA clone IMAGE:153523 3' similar to contains L1 repetitive element ; |
| 1556 | 14709 | 27789 | 1.1 | 5.6E-02 | AF094455.1 | NT | Hydrocotyle rotundifolia ribosomal protein L16 (rpl16) gene, intron; chloroplast gene for chloroplast product |
| 2362 | 15493 |  | 1.95 | 5.6E-02 | BE904308.1 | EST_HUMAN | 601494578F2 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3896610 5' |
| 4763 | 17898 | 30878 | 1.37 | 5.6E-02 | AB013100.1 | NT | Lycopersicon esculentum LE-ACS6 mRNA for 1-aminocyclopropane-1-carboxylate synthase, complete cds |
| 4818 | 17951 | 30936 | 1.31 | 5.6E-02 | AA290599.1 | EST_HUMAN | zs45c01.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:700416 3' |
| 6799 | 19954 | 33354 | 5.87 | 5.6E-02 | AW172708.1 | EST_HUMAN | xj02c10.x1 NCI_CGAP_Ut2 Homo sapiens cDNA clone IMAGE:2656050 3' similar to TR:O94979 O94979 KIAA0905 PROTEIN. ; |
| 7031 | 20167 | 33589 | 1.02 | 5.6E-02 | AA866182.1 | EST_HUMAN | od47f12.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1371119 3' similar to contains Alu repetitive element;contains element L1 repetitive element ; |
| 7301 | 20383 | 33842 | 3.3 | 5.6E-02 | BE008001.1 | EST_HUMAN | QV0-BN0147-290400-214-g07 BN0147 Homo sapiens cDNA |
| 8010 | 21060 | 34572 | 1.32 | 5.6E-02 | AI183583.1 | EST_HUMAN | qd64g11.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1734308 3' |
| 9002 | 22081 | 35623 | 2.52 | 5.6E-02 | BE542663.1 | EST_HUMAN | 601067158F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3453279 5' |
| 9002 | 22081 | 35624 | 2.52 | 5.6E-02 | BE542663.1 | EST_HUMAN | 601067158F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3453279 5' |
| 10017 | 23055 | 36651 | 1.18 | 5.6E-02 | AA482864.1 | EST_HUMAN | nf49d07.s1 NCI_CGAP_Alv1 Homo sapiens cDNA clone IMAGE:923245 similar to TR:G769859 G769859 LAMINA ASSOCIATED POLYPEPTIDE 1C. ; |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11863 | 24851 | | 2.42 | 5.6E-02 | AF260225.1 | NT | Homo sapiens TESTIN 2 and TESTIN 3 genes, complete cds, alternatively spliced |
| 2720 | 15838 | 28948 | 7.33 | 5.5E-02 | X97869.1 | NT | H.sapiens gene encoding La autoantigen |
| 3286 | 16460 | 29481 | 3.33 | 5.5E-02 | 6755501 | NT | Mus musculus SH3 domain protein 1B (Sh3d1B), mRNA |
| 4332 | 17475 | 30459 | 0.98 | 5.5E-02 | L41561.1 | NT | Gallid herpesvirus mRNA fragment |
| 5776 | 18968 | 32272 | 3.49 | 5.5E-02 | Q01174 | SWISSPROT | TROPOMYOSIN ALPHA CHAIN, NON MUSCLE |
| 6149 | 18968 | 32272 | 4.32 | 5.5E-02 | Q01174 | SWISSPROT | TROPOMYOSIN ALPHA CHAIN, NON MUSCLE |
| 7535 | 20608 | 34083 | 1.65 | 5.5E-02 | 6755902 | NT | Mus musculus tuftelin 1 (Tuft1), mRNA |
| 8311 | 21393 | 34917 | 0.87 | 5.5E-02 | AF170911.1 | NT | Homo sapiens sodium-dependent vitamin C transporter 1 (SVCT1) mRNA, complete cds |
| 8311 | 21393 | 34918 | 0.87 | 5.5E-02 | AF170911.1 | NT | Homo sapiens sodium-dependent vitamin C transporter 1 (SVCT1) mRNA, complete cds |
| 9855 | 22895 | 36476 | 0.76 | 5.5E-02 | 10947034 | NT | Homo sapiens eIF4E-transporter (4E-T), mRNA |
| 9855 | 22895 | 36477 | 0.76 | 5.5E-02 | 10947034 | NT | Homo sapiens eIF4E-transporter (4E-T), mRNA |
| 9951 | 22990 | 36583 | 1.24 | 5.5E-02 | U69492.1 | NT | Mus musculus second IL11 receptor alpha chain (IL11Ra2) gene, exons 1 and 2 |
| 11271 | 24339 | 37977 | 6.31 | 5.5E-02 | U09771.1 | NT | Citrobacter freundii DSM 30040 cyclopropane fatty acid synthase (cfa) gene, partial cds, dihydroxyacetone kinase (dhaK), glycerol dehydrogenase (dhaD), transcriptional activator (dhaR), 1,3-propanediol dehydrogenase (dhaT), glycerol dehydratase (dhaB),> |
| 3084 | 16260 | | 0.85 | 5.4E-02 | AJ277468.1 | NT | Oryza sativa rbbi3-1 gene for putative Bowman Birk trypsin inhibitor |
| 3509 | 18476 | | 8.19 | 5.4E-02 | BE073468.1 | EST_HUMAN | RC5-BT0559-140200-012-C03 BT0559 Homo sapiens cDNA |
| 4020 | 17177 | 30186 | 0.61 | 5.4E-02 | U85806.1 | NT | Hirudo medicinalis SNAP-25 homolog mRNA, complete cds |
| 8316 | 21398 | | 1.18 | 5.4E-02 | Z99116.1 | NT | Bacillus subtilis complete genome (section 13 of 21): from 2395261 to 2613730 |
| 9271 | 22347 | 35897 | 0.51 | 5.4E-02 | AF260225.1 | NT | Homo sapiens TESTIN 2 and TESTIN 3 genes, complete cds, alternatively spliced |
| 10938 | 24020 | 37653 | 1.86 | 5.4E-02 | U20780.1 | NT | Neurospora crassa ubiquinol-cytochrome c oxidoreductase subunit VIII (QCR8) mRNA, complete cds |
| 11453 | 24513 | 38180 | 1.36 | 5.4E-02 | BF371289.1 | EST_HUMAN | RC6-FN0112-190700-021-D06 FN0112 Homo sapiens cDNA |
| 11453 | 24513 | 38181 | 1.36 | 5.4E-02 | BF371289.1 | EST_HUMAN | RC6-FN0112-190700-021-D06 FN0112 Homo sapiens cDNA |
| 12463 | 26960 | | 3.72 | 5.4E-02 | U44894.1 | NT | Rana catesbiana heat shock protein 30 (HSP30) mRNA, complete cds |
| 1078 | 14244 | 27300 | 1.55 | 5.3E-02 | AW391248.1 | EST_HUMAN | QV0-ST0213-021299-062-a09 ST0213 Homo sapiens cDNA |
| 1078 | 14244 | 27301 | 1.55 | 5.3E-02 | AW391248.1 | EST_HUMAN | QV0-ST0213-021299-062-a09 ST0213 Homo sapiens cDNA |
| 1535 | 14688 | 27768 | 20.57 | 5.3E-02 | T94759.1 | EST_HUMAN | ye37f12.r1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:119951 5' similar to gb:K01506 HLA CLASS II HISTOCOMPATIBILITY ANTIGEN, DP(1) ALPHA CHAIN (HUMAN); |
| 2566 | 15691 | 28816 | 3.22 | 5.3E-02 | AJ276408.1 | NT | Pseudomonas putida ttgS gene |
| 3008 | 16184 | 29207 | 0.97 | 5.3E-02 | M58417.1 | NT | Drosophila melanogaster laminin B2 gene, complete cds |
| 3008 | 16184 | 29208 | 0.97 | 5.3E-02 | M58417.1 | NT | Drosophila melanogaster laminin B2 gene, complete cds |
| 3221 | 16395 | 29406 | 4.83 | 5.3E-02 | AJ276408.1 | NT | Pseudomonas putida ttgS gene |
| 5200 | 18321 | 31290 | 7.98 | 5.3E-02 | M80463.1 | NT | Mus musculus caudal type homeobox-1 (Cdx-1) gene, complete cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5434 | 18634 | 31612 | 2.39 | 5.3E-02 | AE000527.1 | NT | Helicobacter pylori 26695 section 5 of 134 of the complete genome |
| 5434 | 18634 | 31613 | 2.39 | 5.3E-02 | AE000527.1 | NT | Helicobacter pylori 26695 section 5 of 134 of the complete genome |
| 6228 | 19403 | 32753 | 1.14 | 5.3E-02 | M85289.1 | NT | Human heparan sulfate proteoglycan (HSPG2) mRNA, complete cds |
| 7024 | 20160 | 33580 | 4.02 | 5.3E-02 | 9695413 | NT | Lymphocystis disease virus 1, complete genome |
| 7241 | 20325 | 33769 | 1.37 | 5.3E-02 | U32832.1 | NT | Haemophilus influenzae Rd section 147 of 163 of the complete genome |
| 7517 | 20590 | | 2.3 | 5.3E-02 | S78221.1 | NT | nuclear protein TIF1 isoform [mice, mRNA, 4053 nt] |
| 8061 | 21073 | 34585 | 0.68 | 5.3E-02 | P38742 | SWISSPROT | HYPOTHETICAL 130.0 KD PROTEIN IN SNF6-SPO11 INTERGENIC REGION |
| 8600 | 21681 | | 0.68 | 5.3E-02 | U10098.1 | NT | Mus musculus 129/Sv cystatin C (cst3) gene, complete cds |
| 9325 | 22401 | 35954 | 1.73 | 5.3E-02 | X03127.1 | NT | Podospora anserina mitochondrial epsilon-sen DNA |
| 10462 | 23497 | | 0.61 | 5.3E-02 | Y07907.1 | NT | D.rerio mRNA for zp-23 POU gene, splice variant (neurula, 9-16 *hpf and postsomitogenesis, 20-28 hpf*) |
| 10538 | 23573 | 37180 | 0.79 | 5.3E-02 | X68432.1 | NT | B.rerio pou[c] mRNA for transcription factor |
| 13173 | 25761 | 31931 | 1.55 | 5.3E-02 | AF276815.1 | NT | Branchiostoma floridae homeodomain-containing protein Hox13 (Hox13) gene, exon 2 and partial cds |
| 2358 | 15489 | | 64.04 | 5.2E-02 | 5031908 | NT | Homo sapiens meprin A, alpha (PABA peptide hydrolase) (MEP1A) mRNA |
| 3183 | 16358 | 29363 | 2.39 | 5.2E-02 | AJ277661.1 | NT | Homo sapiens partial LMO1 gene for LIM domain only 1 protein, exon 1 |
| 3183 | 16358 | 29364 | 2.39 | 5.2E-02 | AJ277661.1 | NT | Homo sapiens partial LMO1 gene for LIM domain only 1 protein, exon 1 |
| 4060 | 17206 | 30216 | 0.8 | 5.2E-02 | AF236101.1 | NT | Arabidopsis thaliana putative dicarboxylate diiron protein (Crd1) mRNA, complete cds |
| 4393 | 17536 | 30515 | 3.31 | 5.2E-02 | U07132.1 | NT | Human steroid hormone receptor Ner-I mRNA, complete cds |
| 5287 | 18406 | 31373 | 0.66 | 5.2E-02 | AB035201.1 | NT | Rattus norvegicus mRNA for thyroglobulin, complete cds |
| 6040 | 19223 | 32545 | 0.64 | 5.2E-02 | U14731.1 | NT | Saccharomyces cerevisiae Cdc54p (CDC54) gene, complete cds |
| 6233 | 19408 | | 0.94 | 5.2E-02 | AI830965.1 | EST_HUMAN | wj80e04.x1 NCI_CGAP_Lym12 Homo sapiens cDNA clone IMAGE:2409150 3' similar to contains MER15.b1 MER15 repetitive element ; |
| 7424 | 20601 | 33972 | 1.23 | 5.2E-02 | P36322 | SWISSPROT | DNA POLYMERASE PROCESSIVITY FACTOR (POLYMERASE ACCESSORY PROTEIN) (PAP) (DNA-BINDING GENE 18 PROTEIN) |
| 8389 | 21470 | | 2.39 | 5.2E-02 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 9931 | 22971 | 36560 | 2.16 | 5.2E-02 | D10927.1 | NT | Turnip mosaic virus genomic RNA for Capsid protein, complete cds |
| 9931 | 22971 | 36561 | 2.16 | 5.2E-02 | D10927.1 | NT | Turnip mosaic virus genomic RNA for Capsid protein, complete cds |
| 12725 | 25483 | | 1.6 | 5.2E-02 | Q03030 | SWISSPROT | OXALOACETATE DECARBOXYLASE ALPHA CHAIN |
| 2437 | 15565 | | 0.98 | 5.1E-02 | AL134071.1 | EST_HUMAN | DKFZp547D073_r1 547 (synonym: hfbr1) Homo sapiens cDNA clone DKFZp547D073 5' |
| 5161 | 18283 | 31248 | 0.89 | 5.1E-02 | BE957423.2 | EST_HUMAN | 601653565R2 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:3838361 3' |
| 5251 | 18372 | | 0.96 | 5.1E-02 | AL139077.2 | NT | Campylobacter jejuni NCTC11168 complete genome; segment 4/6 |
| 5349 | 18462 | | 0.74 | 5.1E-02 | U72397.1 | NT | Bacteriophage 80 alpha holin and amidase genes, complete cds |
| 6812 | 19966 | 33370 | 0.79 | 5.1E-02 | AF280369.1 | NT | HIV-1 patient 96 from Italy protease (pol) gene, complete cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6997 | 18516 | 31608 | 1.73 | 5.1E-02 | BF378625.1 | EST_HUMAN | QV0-UM0061-250800-350-b08 UM0051 Homo sapiens cDNA |
| 8447 | 21528 | 35055 | 0.82 | 5.1E-02 | M26434.1 | NT | Human hypoxanthine phosphoribosyltransferase (HPRT) gene, complete cds |
| 8447 | 21528 | 35056 | 0.82 | 5.1E-02 | M26434.1 | NT | Human hypoxanthine phosphoribosyltransferase (HPRT) gene, complete cds |
| 8542 | 21623 | 35160 | 1.42 | 5.1E-02 | AJ131966.1 | NT | Spodoptera littoralis mRNA for 3-dehydroecdysone 3beta-reductase |
| 9086 | 22165 | 35710 | 0.63 | 5.1E-02 | P02533 | SWISSPROT | KERATIN, TYPE I CYTOSKELETAL 14 (CYTOKERATIN 14) (K14) (CK 14) |
| 9086 | 22165 | 35711 | 0.63 | 5.1E-02 | P02533 | SWISSPROT | KERATIN, TYPE I CYTOSKELETAL 14 (CYTOKERATIN 14) (K14) (CK 14) |
| 10014 | 23052 | 36646 | 4.27 | 5.1E-02 | AF012898.1 | NT | Candida albicans protein phosphatase Ssd1 homolog (SSD1) gene, complete cds |
| 10384 | 23419 | 37026 | 1.9 | 5.1E-02 | P40603 | SWISSPROT | ANTER-SPECIFIC PROLINE-RICH PROTEIN APG (PROTEIN CEX) |
| 11068 | 24143 | 37778 | 1.81 | 5.1E-02 | AF083930.1 | NT | Homo sapiens ES18 mRNA, partial cds |
| 11068 | 24143 | 37779 | 1.81 | 5.1E-02 | AF083930.1 | NT | Homo sapiens ES18 mRNA, partial cds |
| 12736 | 25487 |  | 1.81 | 5.1E-02 | AF062467.1 | NT | Cucumis melo polygalacturonase precursor (MPG3) mRNA, complete cds |
| 495 | 13690 | 26721 | 2.8 | 5.0E-02 | AF098004.1 | NT | Mus musculus fatty acid amide hydrolase gene, exon 10 |
| 1231 | 14390 | 27452 | 2.82 | 5.0E-02 | Z99104.1 | NT | Bacillus subtilis complete genome (section 1 of 21): from 1 to 213080 |
| 2047 | 15188 | 28299 | 5.08 | 5.0E-02 | P02810 | SWISSPROT | SALIVARY ACIDIC PROLINE-RICH PHOSPHOPROTEIN 1/2 PRECURSOR (PRP-1/PRP-3) (PRP-2/PRP-4) (PIF-F/PIF-S) (PROTEIN A/PROTEIN C) [CONTAINS: PEPTIDE P-C] |
| 2879 | 14182 | 27244 | 10.68 | 5.0E-02 | U72742.1 | NT | Oryctolagus cuniculus UDP-glucuronosyltransferase (UGT2B13) mRNA, complete cds |
| 3418 | 16587 |  | 1.36 | 5.0E-02 | 7305610 | NT | Mus musculus Unc-51 like kinase 2 (C. elegans) (Ulk2), mRNA |
| 3684 | 16847 |  | 1.01 | 5.0E-02 | U32782.1 | NT | Haemophilus influenzae Rd section 97 of 163 of the complete genome |
| 3775 | 16936 | 29942 | 5.9 | 5.0E-02 | U12769.2 | NT | Antheraea pernyi period clock protein homolog mRNA, complete cds |
| 4941 | 18071 |  | 1.05 | 5.0E-02 | P40232 | SWISSPROT | CASEIN KINASE II BETA CHAIN (CK II) |
| 6258 | 19432 | 32779 | 0.64 | 5.0E-02 | AF096264.1 | NT | Gallus gallus tyrosine kinase JAK1 (JAK1) mRNA, complete cds |
| 6438 | 19605 |  | 1.28 | 5.0E-02 | AJ242625.1 | NT | Mus musculus Dmp-1 gene, exons 1-6 |
| 7128 | 18554 | 31469 | 0.58 | 5.0E-02 | P35616 | SWISSPROT | NEUROFILAMENT TRIPLET L PROTEIN (NEUROFILAMENT LIGHT POLYPEPTIDE) (NF-L) |
| 7709 | 20774 | 34259 | 10.04 | 5.0E-02 | P35616 | SWISSPROT | NEUROFILAMENT TRIPLET L PROTEIN (NEUROFILAMENT LIGHT POLYPEPTIDE) (NF-L) |
| 7913 | 20964 |  | 0.67 | 5.0E-02 | AW062464.1 | EST_HUMAN | MR0-CT0064-100899-002-g10 CT0064 Homo sapiens cDNA |
| 10403 | 23438 | 37046 | 1.37 | 5.0E-02 | AF305238.1 | NT | Mus musculus Fas-interacting serine/threonine kinase 3 (Fist3) mRNA, complete cds |
| 10855 | 23888 |  | 0.55 | 5.0E-02 | BF213260.1 | EST_HUMAN | 601844753F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4070101 5' |
| 11782 | 24772 | 38468 | 2.26 | 5.0E-02 | U67600.1 | NT | Methanococcus jannaschii section 142 of 150 of the complete genome |
| 12229 | 26004 |  | 4.7 | 5.0E-02 | Q04047 | SWISSPROT | NO-ON-TRANSIENT A PROTEIN |
| 231 | 13452 |  | 11.82 | 4.9E-02 | M14230.1 | NT | Chicken 28-kDa vitamin D-dependent calcium-binding protein (CaBP-28) mRNA, complete cds |
| 380 | 13588 | 26623 | 4.18 | 4.9E-02 | AF275948.1 | NT | Homo sapiens ABCA1 (ABCA1) gene, complete cds |
| 380 | 13588 | 26624 | 4.18 | 4.9E-02 | AF275948.1 | NT | Homo sapiens ABCA1 (ABCA1) gene, complete cds |
| 2937 | 16114 | 29126 | 0.71 | 4.9E-02 | U32636.1 | NT | Zea mays phytoene synthase (Y1) gene, complete cds |
| 3360 | 16532 | 29546 | 1.85 | 4.9E-02 | P54258 | SWISSPROT | ATROPHIN-1 (DENTATORUBRAL-PALLIDOLUYSIAN ATROPHY PROTEIN) |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3660 | 16823 | | 0.85 | 4.9E-02 | AA188940.1 | EST_HUMAN | zq48a12.s1 Stratagene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:632926 3' similar to contains Alu repetitive element;contains element MSR1 repetitive element ; |
| 3681 | 16844 | 29851 | 0.78 | 4.9E-02 | AA400914.1 | EST_HUMAN | zt78a03.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:728428 3' |
| 3681 | 16844 | 29852 | 0.78 | 4.9E-02 | AA400914.1 | EST_HUMAN | zt78a03.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:728428 3' |
| 4964 | 18093 | 31069 | 2.64 | 4.9E-02 | AW167821.1 | EST_HUMAN | xg56g10.x1 NCI_CGAP_Ut4 Homo sapiens cDNA clone IMAGE:2632386 3' |
| 4964 | 18093 | 31070 | 2.64 | 4.9E-02 | AW167821.1 | EST_HUMAN | xg56g10.x1 NCI_CGAP_Ut4 Homo sapiens cDNA clone IMAGE:2632386 3' |
| 5486 | 18685 | 31702 | 1.62 | 4.9E-02 | L00122.1 | NT | Rat elastase II gene, exon 6 |
| 5486 | 18685 | 31703 | 1.62 | 4.9E-02 | L00122.1 | NT | Rat elastase II gene, exon 6 |
| 7292 | 20374 | 33831 | 1.79 | 4.9E-02 | AE000980.1 | NT | Archaeoglobus fulgidus section 127 of 172 of the complete genome |
| 8815 | 21894 | | 1.07 | 4.9E-02 | AE002309.1 | NT | Chlamydia muridarum, section 40 of 85 of the complete genome |
| 8942 | 22021 | | 0.61 | 4.9E-02 | BE931532.1 | EST_HUMAN | MR0-HT0408-170800-003-a08 HT0408 Homo sapiens cDNA |
| 8954 | 22033 | 36576 | 0.97 | 4.9E-02 | AL161559.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 59 |
| 10500 | 23535 | 37145 | 0.64 | 4.9E-02 | P19532 | SWISSPROT | TRANSCRIPTION FACTOR E3 |
| 10802 | 23835 | 37459 | 1.57 | 4.9E-02 | L41161.1 | NT | Mus musculus SM22 alpha gene, exon 1 |
| 10802 | 23835 | 37460 | 1.57 | 4.9E-02 | L41161.1 | NT | Mus musculus SM22 alpha gene, exon 1 |
| 11687 | 24686 | 38376 | 3.46 | 4.9E-02 | AF008303.1 | NT | Homo sapiens prepro placental TGF-beta gene, complete cds |
| 12957 | 25624 | | 3.23 | 4.9E-02 | M19364.1 | NT | Human gamma-B-crystallin (gamma 1-2) and gamma-C-crystallin (gamma 2-1) genes, complete cds |
| 340 | 13552 | 26582 | 1.19 | 4.8E-02 | D16471.1 | NT | Human mRNA, Xq terminal portion |
| 341 | 13552 | 26582 | 2.61 | 4.8E-02 | D16471.1 | NT | Human mRNA, Xq terminal portion |
| 501 | 13696 | 26726 | 11.53 | 4.8E-02 | AF003100.1 | NT | Arabidopsis thaliana AP2 domain containing protein RAP2.7 mRNA, partial cds |
| 2347 | 15478 | 28610 | 2.08 | 4.8E-02 | W51983.1 | EST_HUMAN | zc49b02.s1 Soares_senescent_fibroblasts_NbHSF Homo sapiens cDNA clone IMAGE:325611 3' similar to gb:M30938 LUPUS KU AUTOANTIGEN PROTEIN P86 (HUMAN); |
| 3280 | 16454 | 29476 | 1.79 | 4.8E-02 | X17144.1 | NT | Tetrahymena rostrata histone H3II and histone H4II intergenic DNA |
| 4793 | 17928 | | 1.06 | 4.8E-02 | Z54280.1 | NT | S.scrofa gene for skeletal muscle ryanodine receptor |
| 5237 | 18359 | 31328 | 0.98 | 4.8E-02 | U91914.1 | NT | Streptococcus constellatus D-alanine:D-alanine ligase gene, partial cds |
| 8332 | 21414 | 34940 | 1.41 | 4.8E-02 | AW388497.1 | EST_HUMAN | MR2-ST0129-221099-012-b02 ST0129 Homo sapiens cDNA |
| 9329 | 22405 | 35957 | 1.01 | 4.8E-02 | AJ001398.1 | NT | Fugu rubripes rps24 gene |
| 9329 | 22405 | 35958 | 1.01 | 4.8E-02 | AJ001398.1 | NT | Fugu rubripes rps24 gene |
| 11219 | 24288 | 37928 | 1.84 | 4.8E-02 | X61236.1 | NT | S.cerevisiae NUM1 gene, involved in nuclear migration control |
| 11219 | 24288 | 37929 | 1.84 | 4.8E-02 | X61236.1 | NT | S.cerevisiae NUM1 gene, involved in nuclear migration control |
| 12511 | 25350 | | 1.46 | 4.8E-02 | 9632893 | NT | Streptococcus thermophilus bacteriophage Sfi19, complete genome |
| 5122 | 18248 | 31214 | 0.74 | 4.7E-02 | 6981261 | NT | Rattus norvegicus Nestin (Nes), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6969 | 20197 | 33623 | 3.34 | 4.7E-02 | W01153.1 | EST_HUMAN | yz97f09.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:291017 5' similar to contains Alu repetitive element; |
| 7025 | 20161 | 33581 | 0.69 | 4.7E-02 | BF686625.1 | EST_HUMAN | 602143554F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4304772 5' |
| 7025 | 20161 | 33582 | 0.69 | 4.7E-02 | BF686625.1 | EST_HUMAN | 602143554F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4304772 5' |
| 7058 | 20111 | 33527 | 1.71 | 4.7E-02 | M62752.1 | NT | Rat statin-related protein (s1) gene, complete CDS |
| 8445 | 21626 | 35053 | 9.44 | 4.7E-02 | X15543.1 | NT | B.taurus mRNA for RF-36-DNA-binding protein |
| 9154 | 22232 | 35777 | 1.31 | 4.7E-02 | X89211.1 | NT | H.sapiens DNA for endogenous retroviral like element |
| 9176 | 22254 |  | 2.97 | 4.7E-02 | AB026678.1 | NT | Gallus gallus Wpkci-8 gene, complete cds |
| 9428 | 22502 | 36068 | 7.75 | 4.7E-02 | X15543.1 | NT | B.taurus mRNA for RF-36-DNA-binding protein |
| 9936 | 22975 |  | 0.7 | 4.7E-02 | AI873042.1 | EST_HUMAN | we79c10.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2347314 3' |
| 11852 | 24841 | 38535 | 1.43 | 4.7E-02 | U73621.1 | NT | Bos taurus paired box protein (pax-6) gene, partial cds |
| 11852 | 24841 | 38536 | 1.43 | 4.7E-02 | U73621.1 | NT | Bos taurus paired box protein (pax-6) gene, partial cds |
| 12446 | 26182 |  | 4.31 | 4.7E-02 | AV648521.1 | EST_HUMAN | AV648521 GLC Homo sapiens cDNA clone GLCBKD02 3' |
| 281 | 13499 | 26531 | 0.69 | 4.6E-02 | BE153583.1 | EST_HUMAN | PM0-HT0339-251199-003-g05 HT0339 Homo sapiens cDNA |
| 758 | 13939 | 26984 | 2.89 | 4.6E-02 | AE000445.1 | NT | Escherichia coli K-12 MG1655 section 335 of 400 of the complete genome |
| 1320 | 14476 |  | 1.49 | 4.6E-02 | AI014255.1 | EST_HUMAN | am50d02.s1 Johnston frontal cortex Homo sapiens cDNA clone IMAGE:1538979 3' similar to TR:P90533 P90533 LIMA ;contains element LTR1 repetitive element ; |
| 1390 | 14644 | 27620 | 5.39 | 4.6E-02 | AV727059.1 | EST_HUMAN | AV727059 HTC Homo sapiens cDNA clone HTCBWC01 5' |
| 2557 | 15682 | 28807 | 2.34 | 4.6E-02 | AW236023.1 | EST_HUMAN | xn24f03.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2694653 3' similar to SW:GRF1_HUMAN Q12849 G-RICH SEQUENCE FACTOR-1 ; |
| 2869 | 13499 | 26531 | 1.78 | 4.6E-02 | BE153583.1 | EST_HUMAN | PM0-HT0339-251199-003-g05 HT0339 Homo sapiens cDNA |
| 3073 | 16249 | 29270 | 0.64 | 4.6E-02 | BE153583.1 | EST_HUMAN | PM0-HT0339-251199-003-g05 HT0339 Homo sapiens cDNA |
| 3410 | 16249 | 29270 | 0.59 | 4.6E-02 | BE153583.1 | EST_HUMAN | PM0-HT0339-251199-003-g05 HT0339 Homo sapiens cDNA |
| 3585 | 16249 | 29270 | 0.94 | 4.6E-02 | BE153583.1 | EST_HUMAN | PM0-HT0339-251199-003-g05 HT0339 Homo sapiens cDNA |
| 4239 | 17385 |  | 0.92 | 4.6E-02 | AF220365.1 | NT | Mus musculus nucleolar RNA helicase II/Gu (ddx21) gene, complete cds |
| 5852 | 19042 | 32348 | 1.57 | 4.6E-02 | AF076962.1 | NT | Haplochromis burtoni gonadotropin-releasing hormone and GnRH-associated peptide precursor (Gnrh2) gene, complete cds |
| 6359 | 19529 | 32887 | 3.67 | 4.6E-02 | X61624.1 | NT | C.reinhardtii atp2 (atpB) mRNA |
| 6359 | 19529 | 32888 | 3.67 | 4.6E-02 | X61624.1 | NT | C.reinhardtii atp2 (atpB) mRNA |
| 6938 | 20251 | 33687 | 1.41 | 4.6E-02 | AI149674.1 | EST_HUMAN | qc60b06.x1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clono IMAGE:1713971 3' similar to contains L1.t3 L1 repetitive element ; |
| 8007 | 21057 | 34569 | 0.63 | 4.6E-02 | 6978720 | NT | Rattus norvegicus Cathepsin H (Ctsh), mRNA |
| 8856 | 21935 | 35472 | 3.81 | 4.6E-02 | BE154006.1 | EST_HUMAN | PM0-HT0339-060400-009-G12 HT0339 Homo sapiens cDNA |
| 11689 | 24687 | 38377 | 3.39 | 4.6E-02 | AA913328.1 | EST_HUMAN | ol27h09.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1524737 3' |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 13079 | 25708 | | 3.14 | 4.6E-02 | X57808.1 | NT | Human germline immunoglobulin lambda light chain gene |
| 460 | 13655 | 26693 | 2.24 | 4.5E-02 | P22448 | SWISSPROT | RETINOIC ACID RECEPTOR BETA (RAR-BETA) |
| 1245 | 14404 | 27465 | 1.52 | 4.5E-02 | AF005730.1 | NT | Marburg virus strain M/S.Africa/Johannesburg/1975/Ozolin VP35 gene, complete cds |
| 1245 | 14404 | 27466 | 1.52 | 4.5E-02 | AF005730.1 | NT | Marburg virus strain M/S.Africa/Johannesburg/1975/Ozolin VP35 gene, complete cds |
| 1847 | 14993 | 28095 | 4.93 | 4.5E-02 | P32182 | SWISSPROT | HEPATOCYTE NUCLEAR FACTOR 3-BETA (HNF-3B) |
| 2177 | 15312 | 28440 | 2.2 | 4.5E-02 | AE003964.1 | NT | Xylella fastidiosa, section 110 of 229 of the complete genome |
| 3817 | 16977 | 29981 | 5.04 | 4.5E-02 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 6360 | 19530 | 32889 | 1.63 | 4.5E-02 | AJ400877.1 | NT | Homo sapiens ASCL3 gene, CEGP1 gene, C11orf14 gene, C11orf15 gene, C11orf16 gene and C11orf17 gene |
| 6636 | 19795 | 33184 | 0.84 | 4.5E-02 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 7018 | 20154 | 33574 | 0.59 | 4.5E-02 | L26487.1 | NT | Methanosarcina frisia carbon monoxide dehydrogenase large subunit (cdhIA) gene; carbon monoxide dehydrogenase small subunit (cdhIB) gene, complete cds |
| 7018 | 20154 | 33575 | 0.59 | 4.5E-02 | L26487.1 | NT | Methanosarcina frisia carbon monoxide dehydrogenase large subunit (cdhIA) gene; carbon monoxide dehydrogenase small subunit (cdhIB) gene, complete cds |
| 8587 | 21668 | 35207 | 2.24 | 4.5E-02 | AF036684.1 | NT | Arabidopsis thaliana CCAAT-box binding factor HAP3 homolog gene, complete cds |
| 10155 | 23192 | 36788 | 4.2 | 4.5E-02 | AA325216.1 | EST_HUMAN | EST28167 Cerebellum II Homo sapiens cDNA 5' end similar to similar to neuro-D4 protein |
| 10305 | 23340 | 36946 | 0.47 | 4.5E-02 | X95508.1 | NT | *A.europaeum mRNA for legumin-like protein* |
| 10421 | 23456 | 37061 | 0.79 | 4.5E-02 | AB000470.1 | NT | Gallus gallus mRNA for alpha1 integrin, complete cds |
| 12442 | 25313 | 32089 | 2.61 | 4.5E-02 | 11418013 | NT | Homo sapiens ret finger protein-like 3 (RFPL3), mRNA |
| 12891 | 26051 | 31684 | 3.79 | 4.5E-02 | AA191097.1 | EST_HUMAN | zq43f11.r1 Stratagene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:632493 5' |
| 227 | 13449 | | 4.35 | 4.4E-02 | BE972733.1 | EST_HUMAN | 601652154F1 NIH_MGC_82 Homo sapiens cDNA clone IMAGE:3935388 5' |
| 1050 | 14216 | 27273 | 0.77 | 4.4E-02 | L19295.1 | NT | *Drosophila melanogaster extradenticle* (EXD) mRNA, complete cds |
| 2163 | 15299 | | 6.82 | 4.4E-02 | P31568 | SWISSPROT | HYPOTHETICAL PROTEIN (ORF 2280) |
| 2559 | 15684 | 28809 | 1.81 | 4.4E-02 | AW875475.1 | EST_HUMAN | QV2-PT0012-010300-070-g02 PT0012 Homo sapiens cDNA |
| 3730 | 16891 | 29895 | 1.68 | 4.4E-02 | AF159160.1 | NT | Myxococcus xanthus serine/threonine kinase Pkn10 (pkn10) gene, complete cds |
| 4750 | 17885 | 30866 | 1.33 | 4.4E-02 | AF109907.1 | NT | Homo sapiens S164 gene, partial cds; PS1 and hypothetical protein genes, complete cds; and S171 gene, partial cds |
| 4750 | 17885 | 30867 | 1.33 | 4.4E-02 | AF109907.1 | NT | Homo sapiens S164 gene, partial cds; PS1 and hypothetical protein genes, complete cds; and S171 gene, partial cds |
| 7267 | 20350 | 33802 | 0.59 | 4.4E-02 | AF095824.1 | NT | Canis familiaris matrix metalloproteinase 9 (MMP-9) mRNA, partial cds |
| 7267 | 20350 | 33803 | 0.59 | 4.4E-02 | AF095824.1 | NT | Canis familiaris matrix metalloproteinase 9 (MMP-9) mRNA, partial cds |
| 8952 | 22031 | 35572 | 2.34 | 4.4E-02 | AA736969.1 | EST_HUMAN | nw13h03.s1 NCI_CGAP_SS1 Homo sapiens cDNA clone IMAGE:1239221 3' |
| 11326 | 24389 | 38034 | 2.64 | 4.4E-02 | AF060669.1 | NT | Hepatitis E virus strain HEV-US2 polyprotein (ORF1), (ORF3), and capsid protein (ORF2) genes, complete cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11477 | 24536 | 38206 | 3.08 | 4.4E-02 | AA496739.1 | EST_HUMAN | ae33f04.r1 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:897631 5' |
| 12158 | 25126 | | 4.55 | 4.4E-02 | AB040926.1 | NT | Homo sapiens mRNA for KIAA1493 protein, partial cds |
| 12347 | 26192 | | 1.65 | 4.4E-02 | BF241245.1 | EST_HUMAN | 601878746F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4107418 5' |
| 802 | 13982 | 27034 | 7.25 | 4.3E-02 | AF003249.1 | NT | Morone saxatilis myosin heavy chain FM3A (FM3A) mRNA, complete cds |
| 2634 | 15757 | 28871 | 1.55 | 4.3E-02 | AV704878.1 | EST_HUMAN | AV704878 ADB Homo sapiens cDNA clone ADBAOH08 5' |
| 3516 | 16682 | 29693 | 9.18 | 4.3E-02 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 3749 | 16910 | | 1.21 | 4.3E-02 | AF060568.1 | NT | Homo sapiens promyelocytic leukemia zinc finger protein (PLZF) gene, complete cds |
| 6625 | 19785 | 33172 | 4.94 | 4.3E-02 | P30427 | SWISSPROT | PLECTIN |
| 6625 | 19785 | 33173 | 4.94 | 4.3E-02 | P30427 | SWISSPROT | PLECTIN |
| 6871 | 20023 | 33433 | 0.8 | 4.3E-02 | AA652266.1 | EST_HUMAN | ns69c12.s1 NCI_CGAP_Pr2 Homo sapiens cDNA clone IMAGE:1188886 |
| 8711 | 21791 | 35327 | 0.69 | 4.3E-02 | AF293359.1 | NT | Homo sapiens desmocollin 3 (DSC3) gene, complete cds, alternatively spliced |
| 9001 | 22080 | 35621 | 1.32 | 4.3E-02 | X55322.1 | NT | H.sapiens NCAM mRNA for neural cell adhesion molecule |
| 9001 | -22080 | 35622 | 1.32 | 4.3E-02 | X55322.1 | NT | H.sapiens NCAM mRNA for neural cell adhesion molecule |
| 12412 | 25291 | | 1.2 | 4.3E-02 | AL139077.2 | NT | Campylobacter jejuni NCTC11168 complete genome; segment 4/6 |
| 845 | 14023 | 27081 | 1.74 | 4.2E-02 | AU123327.1 | EST_HUMAN | AU123327 NT2RM2 Homo sapiens cDNA clone NT2RM2000020 5' |
| 889 | 14065 | | 2.4 | 4.2E-02 | AU123327.1 | EST_HUMAN | AU123327 NT2RM2 Homo sapiens cDNA clone NT2RM2000020 5' |
| 919 | 14094 | 27159 | 1.51 | 4.2E-02 | AW003646.1 | EST_HUMAN | wx34g01.x1 NCI_CGAP_Pit1 Homo sapiens cDNA clone IMAGE:2545584 3' similar to TR:Q63291 Q63291 L1 RETROPOSON, ORF2 MRNA ;contains L1.t3 L1 L1 repetitive element ; |
| 1758 | 14907 | | 1.37 | 4.2E-02 | AL445066.1 | NT | Thermoplasma acidophilum complete genome; segment 4/5 |
| 1819 | 14968 | 28060 | 0.99 | 4.2E-02 | P23091 | SWISSPROT | TRANSFORMING PROTEIN MAF |
| 3764 | 16915 | 29918 | 1.66 | 4.2E-02 | P23091 | SWISSPROT | TRANSFORMING PROTEIN MAF |
| 4865 | 17998 | 30982 | 0.59 | 4.2E-02 | BF342995.1 | EST_HUMAN | 602017105F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4152672 5' |
| 5736 | 18928 | 32224 | 0.74 | 4.2E-02 | AF280107.1 | NT | Homo sapiens cytochrome P450 polypeptide 43 (CYP3A43) gene, partial cds; cytochrome P450 polypeptide 4 (CYP3A4) and cytochrome P450 polypeptide 7 (CYP3A7) genes, complete cds; and cytochrome P450 polypeptide 5 (CYP3A5) gene, partial cds |
| 5735 | 18928 | 32225 | 0.74 | 4.2E-02 | AF280107.1 | NT | Homo sapiens cytochrome P450 polypeptide 43 (CYP3A43) gene, partial cds; cytochrome P450 polypeptide 4 (CYP3A4) and cytochrome P450 polypeptide 7 (CYP3A7) genes, complete cds; and cytochrome P450 polypeptide 5 (CYP3A5) gene, partial cds |
| 7122 | 18548 | 31460 | 0.61 | 4.2E-02 | BE268285.1 | EST_HUMAN | 601124596F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:2989319 5' |
| 7695 | 20760 | 34244 | 4.35 | 4.2E-02 | AF276752.1 | NT | Legionella pneumophila *catalase-peroxidase* (*kat*A) gene, complete cds |
| 7717 | 20761 | 34267 | 0.61 | 4.2E-02 | AV730347.1 | EST_HUMAN | AV730347 HTF Homo sapiens cDNA clone HTFAVH04 5' |
| 9010 | 22089 | 35631 | 3.82 | 4.2E-02 | P05095 | SWISSPROT | ALPHA-ACTININ 3, NON MUSCULAR (F-ACTIN CROSS LINKING PROTEIN) |
| 10367 | 23402 | 37013 | 1.46 | 4.2E-02 | Q16650 | SWISSPROT | T-BRAIN-1 PROTEIN (T-BOX BRAIN PROTEIN 1) (TBR-1) (TES-56) |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11295 | 24361 | 38002 | 1.52 | 4.2E-02 | AA976118.1 | EST_HUMAN | on33b11.s1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1558461 3' similar to gb:M65290 INTERLEUKIN-12 BETA CHAIN PRECURSOR (HUMAN); |
| 11587 | 24640 | 38320 | 2.83 | 4.2E-02 | BE815822.1 | EST_HUMAN | PM3-BN0174-250500-009-d10 BN0174 Homo sapiens cDNA |
| 11587 | 24640 | 38321 | 2.83 | 4.2E-02 | BE815822.1 | EST_HUMAN | PM3-BN0174-250500-009-d10 BN0174 Homo sapiens cDNA |
| 11795 | 24785 | 38483 | 1.52 | 4.2E-02 | AF176458.1 | NT | PRRS isolate PRRSV36 envelope glycoprotein gene, complete cds |
| 12729 | 26109 |  | 6.64 | 4.2E-02 | AI983494.1 | EST_HUMAN | wt49g10.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2510850 3' |
| 13076 | 25705 |  | 1.17 | 4.2E-02 | D14711.1 | NT | Staphylococcus aureus HSP10 and HSP60 genes |
| 523 | 13716 | 26743 | 1.85 | 4.1E-02 | AF200629.1 | NT | Homo sapiens HPS1 gene, intron 5 |
| 2741 | 15858 | 28970 | 1.06 | 4.1E-02 | AE002330.2 | NT | Chlamydia muridarum, section 60 of 85 of the complete genome |
| 4005 | 17162 | 30168 | 0.61 | 4.1E-02 | BE297236.1 | EST_HUMAN | 601177907F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3533353 5' |
| 4005 | 17162 | 30169 | 0.61 | 4.1E-02 | BE297236.1 | EST_HUMAN | 601177907F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3533353 5' |
| 4595 | 17732 |  | 8.4 | 4.1E-02 | AW893484.1 | EST_HUMAN | QV1-NN0012-180400-164-f06 NN0012 Homo sapiens cDNA |
| 5229 | 18351 |  | 0.61 | 4.1E-02 | X85880.1 | NT | L.monocytogenes type 3 partial iap gene (strain 443) |
| 5759 | 18951 | 32253 | 1.06 | 4.1E-02 | BE251894.1 | EST_HUMAN | 601107535F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3343856 5' |
| 5759 | 18951 | 32254 | 1.06 | 4.1E-02 | BE251894.1 | EST_HUMAN | 601107535F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3343856 5' |
| 7022 | 20158 |  | 0.98 | 4.1E-02 | X75881.1 | NT | A.thaliana mRNA for plasma membrane intrinsic protein 1a |
| 7248 | 20331 | 33778 | 1.38 | 4.1E-02 | AE002132.1 | NT | Ureaplasma urealyticum section 33 of 59 of the complete genome |
| 7682 | 20747 | 34228 | 1.79 | 4.1E-02 | 7662347 | NT | Homo sapiens KIAA0867 protein (KIAA0867), mRNA |
| 7778 | 20834 | 34325 | 20.08 | 4.1E-02 | L02110.1 | NT | Mus musculus proviral retroviral insertion in the cGMP-phosphodiesterase (rd beta PDE) gene, intron 1, with the proviral insert encompassing the env pseudogene (3' end) and 3' LTR |
| 7942 | 20992 | 34502 | 2.81 | 4.1E-02 | AF026198.1 | NT | Fugu rubripes neural cell adhesion molecule L1 homolog (L1-CAM) gene, complete cds; putative protein 1 (PUT1) gene, partial cds; mitosis-specific chromosome segregation protein SMC1 homolog (SMC1) gene, complete cds; and calcium channel alpha-1 subunit> |
| 8402 | 21483 | 35011 | 0.74 | 4.1E-02 | P97857 | SWISSPROT | ADAM-TS 1 PRECURSOR (A DISINTEGRIN AND METALLOPROTEINASE WITH THROMBOSPONDIN MOTIFS 1) (ADAMTS-1) (ADAM-TS1) |
| 8845 | 21924 | 35462 | 0.79 | 4.1E-02 | P34687 | SWISSPROT | CUTICLE COLLAGEN 34 |
| 9355 | 22430 | 35988 | 0.87 | 4.1E-02 | AA372398.1 | EST_HUMAN | EST84291 Colon adenocarcinoma IV Homo sapiens cDNA 5' end |
| 13112 | 26110 | 31666 | 9.91 | 4.1E-02 | AJ271909.1 | NT | Brassica napus gln gene for plastid glutamine synthetase, exons 1-12 |
| 3316 | 16489 | 29507 | 3.85 | 4.0E-02 | AB040904.1 | NT | Homo sapiens mRNA for KIAA1471 protein, partial cds |
| 3900 | 17059 | 30058 | 1.09 | 4.0E-02 | L11910.1 | NT | Human retinoblastoma susceptibility gene exons 1-27, complete cds |
| 5495 | 18694 | 31710 | 5.31 | 4.0E-02 | AF280107.1 | NT | Homo sapiens cytochrome P450 polypeptide 43 (CYP3A43) gene, partial cds; cytochrome P450 polypeptide 4 (CYP3A4) and cytochrome P450 polypeptide 7 (CYP3A7) genes, complete cds; and cytochrome P450 polypeptide 5 (CYP3A5) gene, partial cds |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6343 | 19513 | 32870 | 0.98 | 4.0E-02 | BF110434.1 | EST_HUMAN | 7n52h07.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3568380 3' similar to TR:O75296 O75296 R29124_1. ; |
| 7867 | 20921 | 34428 | 5.99 | 4.0E-02 | L23838.1 | NT | Strongylocentrotus purpuratus homolog of human bone morphogenetic protein 1 (submp) mRNA, complete cds |
| 7929 | 20979 |  | 0.71 | 4.0E-02 | AL161535.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 35 |
| 7943 | 20993 | 34503 | 0.8 | 4.0E-02 | AB000381.1 | NT | Homo sapiens DNA for GPI-anchored molecule-like protein, complete cds |
| 7943 | 20993 | 34504 | 0.8 | 4.0E-02 | AB000381.1 | NT | Homo sapiens DNA for GPI-anchored molecule-like protein, complete cds |
| 7980 | 21029 | 34543 | 0.61 | 4.0E-02 | AF288153.1 | NT | Homo sapiens erythrocyte tropomodulin (E-TMOD) gene, exon 7 |
| 8914 | 21993 | 35532 | 2.52 | 4.0E-02 | P08640 | SWISSPROT | GLUCOAMYLASE S1/S2 PRECURSOR (GLUCAN 1,4-ALPHA-GLUCOSIDASE) (1,4-ALPHA-D-GLUCAN GLUCOHYDROLASE) |
| 9844 | 22884 |  | 0.63 | 4.0E-02 | BF679376.1 | EST_HUMAN | 602153884F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4294724 5' |
| 9869 | 22909 | 36495 | 2.46 | 4.0E-02 | AJ000941.1 | NT | Methanobacterium thermoautotrophicum strain Marburg, Thiol:fumarate reductase subunit A |
| 10190 | 23227 |  | 1.08 | 4.0E-02 | D43949.1 | NT | Human mRNA for KIAA0082 gene, partial cds |
| 12073 | 25054 |  | 1.52 | 4.0E-02 | AJ001018.1 | NT | Kluyveromyces lactis gene for Ca++ ATPase |
| 12333 | 25909 | 31859 | 16.34 | 4.0E-02 | AJ001056.1 | NT | Ovis aries mRNA for acetyl-coA carboxylase |
| 1144 | 14309 | 27366 | 2.79 | 3.9E-02 | BF516149.1 | EST_HUMAN | UI-H-BW1-anx-h-08-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3084134 3' |
| 1375 | 14530 | 27603 | 2.15 | 3.9E-02 | P41047 | SWISSPROT | FAS ANTIGEN LIGAND |
| 2016 | 15156 | 28261 | 3.22 | 3.9E-02 | AJ403386.1 | NT | M.musculus DNA for desmin-binding fragment DesD7 |
| 2769 | 15884 |  | 1.97 | 3.9E-02 | 4506862 | NT | Homo sapiens succinate dehydrogenase complex, subunit C, integral membrane protein, 15kD (SDHC) mRNA |
| 5246 | 18367 | 31334 | 0.67 | 3.9E-02 | AW392417.1 | EST_HUMAN | RC6-ST0258-171199-021-C09 ST0258 Homo sapiens cDNA |
| 5279 | 18398 | 31366 | 0.9 | 3.9E-02 | 8924019 | NT | Homo sapiens hypothetical protein PRO1163 (PRO1163), mRNA |
| 5279 | 18398 | 31367 | 0.9 | 3.9E-02 | 8924019 | NT | Homo sapiens hypothetical protein PRO1163 (PRO1163), mRNA |
| 5849 | 19039 | 32346 | 1 | 3.9E-02 | BE968841.1 | EST_HUMAN | 601649874F1 NIH_MGC_74 Homo sapiens cDNA clone IMAGE:3933642 5' |
| 5977 | 19162 | 32482 | 0.65 | 3.9E-02 | BF676203.1 | EST_HUMAN | 602138132F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4274910 5' |
| 7203 | 20068 | 33478 | 0.97 | 3.9E-02 | BE271437.1 | EST_HUMAN | 601140729F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3049830 5' |
| 8023 | 21106 | 34623 | 1.44 | 3.9E-02 | BF239613.1 | EST_HUMAN | 601906848F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4134779 5' |
| 8250 | 21332 | 34849 | 0.6 | 3.9E-02 | AJ229041.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3 |
| 8250 | 21332 | 34850 | 0.6 | 3.9E-02 | AJ229041.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3 |
| 11695 | 21071 | 34582 | 1.56 | 3.9E-02 | P48778 | SWISSPROT | ANTIGEN GOR |
| 12184 | 26059 |  | 3.54 | 3.9E-02 | AB042553.1 | NT | Felis catus G-CSF gene for granulocyte colony-stimulating factor, complete cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 12898 | 25595 |  | 2.35 | 3.9E-02 | U66061.1 | NT | Human germline T-cell receptor beta chain TCRBV17S1A1T, TCRBV2S1, TCRBV10S1P, TCRBV29S1P, TCRBV19S1P, TCRBV15S1, TCRBV11S1A1T, HVB relic, TCRBV28S1P, TCRBV34S1, TCRBV14S1, TCRBV3S1, TCRBV4S1A1T, TRY4, TRY5, TRY6, TRY7, TRY8, TCRBD1, TCRBJ1S1, TCRBJ1S2,> |
| 13036 | 25979 |  | 64.89 | 3.9E-02 | AL049866.2 | NT | Mus musculus chromosome X contigB; X-linked lymphocyte regulated 5 gene, Zinc finger protein 275, Zinc finger protein 92, mmxq28orf |
| 5556 | 18754 | 31792 | 0.8 | 3.8E-02 | M11228.1 | NT | Human protein C gene, complete cds |
| 6212 | 19387 | 32736 | 1.04 | 3.8E-02 | P10284 | SWISSPROT | HOMEOBOX PROTEIN HOX-B4 (HOX-2.6) |
| 7471 | 20546 | 34018 | 1.72 | 3.8E-02 | 6005700 | NT | Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 8 (ABCA8), mRNA |
| 8864 | 21943 |  | 1.51 | 3.8E-02 | M60675.1 | NT | Human von Willebrand factor gene, exons 23 through 34 |
| 10789 | 23822 | 37446 | 0.64 | 3.8E-02 | 7662563 | NT | Homo sapiens PRO0514 protein (PRO0514), mRNA |
| 10888 | 23972 | 37603 | 1.71 | 3.8E-02 | AF143952.2 | NT | Homo sapiens PELOTA (PELOTA) gene, complete cds |
| 1016 | 14187 | 27248 | 4.05 | 3.7E-02 | P19137 | SWISSPROT | LAMININ ALPHA-1 CHAIN PRECURSOR (LAMININ A CHAIN) |
| 2310 | 15442 | 28577 | 6.19 | 3.7E-02 | AI984806.1 | EST_HUMAN | wr85e08.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2494502 3' |
| 2645 | 15768 | 28883 | 0.97 | 3.7E-02 | AB018261.1 | NT | Homo sapiens mRNA for KIAA0718 protein, partial cds |
| 3116 | 16291 | 29306 | 1.13 | 3.7E-02 | P79944 | SWISSPROT | EOMESODERMIN |
| 3117 | 16293 | 29307 | 4.33 | 3.7E-02 | BF312963.1 | EST_HUMAN | 601896233F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4125584 5' |
| 3543 | 16708 |  | 0.91 | 3.7E-02 | 6680541 | NT | Mus musculus potassium large conductance pH-sensitive channel, subfamily M, alpha member 3 (Kcnma3), mRNA |
| 7226 | 26216 |  | 0.95 | 3.7E-02 | AP000063.1 | NT | Aeropyrum pernix genomic DNA, section 6/7 |
| 7869 | 20923 | 34430 | 0.81 | 3.7E-02 | AE003975.1 | NT | Xylella fastidiosa, section 121 of 229 of the complete genome |
| 10219 | 23255 |  | 1.01 | 3.7E-02 | AA782516.1 | EST_HUMAN | ai55c09.s1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone 1360912 3' |
| 12227 | 25175 | 38837 | 7.41 | 3.7E-02 | BF124974.1 | EST_HUMAN | 601762117F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:4024973 5' |
| 12861 | 25945 | 31764 | 3.71 | 3.7E-02 | 11418392 | NT | Homo sapiens solute carrier family 22 (organic cation transporter), member 1 (SLC22A1), mRNA |
| 13069 | 25699 |  | 1.23 | 3.7E-02 | 11467432 | NT | Odontella sinensis chloroplast, complete genome |
| 3744 | 16905 | 29909 | 0.82 | 3.6E-02 | X73221.1 | NT | H.vulgare Ss1 gene for sucrose synthase |
| 3752 | 16913 | 29916 | 0.9 | 3.6E-02 | AL096806.1 | NT | Homo sapiens genomic region containing hypervariable minisatellites chromosome 10[10q26.3] of Homo sapiens |
| 5313 | 18430 | 31400 | 0.67 | 3.6E-02 | AL096810.1 | NT | Homo sapiens genomic region containing hypervariable minisatellites chromosome 10[10q26.3] of Homo sapiens |
| 5543 | 18740 | 31758 | 0.61 | 3.6E-02 | X59403.1 | NT | C.glutamicum gap, pgk and tpi genes for glyceraldehyde-3-phosphate, phosphoglycerate kinase and triosephosphate isomerase |
| 5543 | 18740 | 31774 | 0.61 | 3.6E-02 | X59403.1 | NT | C.glutamicum gap, pgk and tpi genes for glyceraldehyde-3-phosphate, phosphoglycerate kinase and triosephosphate isomerase |

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## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5617 | 18811 | 31880 | 0.66 | 3.6E-02 | AF181722.1 | NT | Homo sapiens RU2AS (RU2) mRNA, complete cds |
| 6846 | 19999 | 33406 | 4.48 | 3.6E-02 | AW945516.1 | EST_HUMAN | CM2-EN0013-110500-192-b10 EN0013 Homo sapiens cDNA |
| 6846 | 19999 | 33407 | 4.48 | 3.6E-02 | AW945516.1 | EST_HUMAN | CM2-EN0013-110500-192-b10 EN0013 Homo sapiens cDNA |
| 7234 | 20318 | 33761 | 1.79 | 3.6E-02 | AF025952.1 | NT | Chromatium vinosum sulfur globule protein Cv2 precursor (sgp2) gene, complete cds |
| 7458 | 20534 | 34009 | 2.89 | 3.6E-02 | AA714521.1 | EST_HUMAN | nw20e05.s1 NCI_CGAP_GCB0 Homo sapiens cDNA clone IMAGE:1241024 3' similar to gb:J00314_rna2 TUBULIN BETA-1 CHAIN (HUMAN); |
| 7811 | 20866 | 34360 | 0.94 | 3.6E-02 | BE143078.1 | EST_HUMAN | MR0-HT0158-030200-003-b08 HT0158 Homo sapiens cDNA |
| 9591 | 22646 | 36216 | 2.16 | 3.6E-02 | U20608.1 | NT | Dictyostelium discoideum unknown spore germination-specific protein-like protein, orf1, orf2 and orf3 genes, complete cds |
| 9591 | 22646 | 36217 | 2.16 | 3.6E-02 | U20608.1 | NT | Dictyostelium discoideum unknown spore germination-specific protein-like protein, orf1, orf2 and orf3 genes, complete cds |
| 9812 | 22852 | 36431 | 0.84 | 3.6E-02 | BF347586.1 | EST_HUMAN | 602020453F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4156116 5' |
| 11456 | 24516 | 38183 | 1.46 | 3.6E-02 | BF131609.1 | EST_HUMAN | 601820416F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4052570 5' |
| 11456 | 24516 | 38184 | 1.46 | 3.6E-02 | BF131609.1 | EST_HUMAN | 601820416F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4052570 5' |
| 918 | 14093 | 27158 | 0.99 | 3.5E-02 | U09506.1 | NT | Drosophila melanogaster tiggrin mRNA, complete cds |
| 1033 | 14202 | 27260 | 2.43 | 3.5E-02 | AF253417.1 | NT | Homo sapiens microsomal epoxide hydrolase (EPHX1) gene, complete cds |
| 1595 | 14748 | 27831 | 1.4 | 3.5E-02 | BF678085.1 | EST_HUMAN | 602085136F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4249377 5' |
| 1595 | 14748 | 27832 | 1.4 | 3.5E-02 | BF678085.1 | EST_HUMAN | 602085136F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4249377 5' |
| 4329 | 17472 | 30457 | 1.83 | 3.5E-02 | AE001773.1 | NT | Thermotoga maritima section 85 of 136 of the complete genome |
| 4435 | 17576 | 30556 | 1.11 | 3.5E-02 | P53780 | SWISSPROT | CYSTATHIONINE BETA-LYASE PRECURSOR (CBL) (BETA-CYSTATHIONASE) (CYSTEINE LYASE) |
| 6351 | 19521 | 32878 | 1.76 | 3.5E-02 | J01238.1 | NT | Maize actin 1 gene (MAc1), complete cds |
| 8165 | 21247 | | 0.91 | 3.5E-02 | H29951.1 | EST_HUMAN | yp44a05.r1 Soares retina N2b5HR Homo sapiens cDNA clone IMAGE:190256 5' similar to contains Alu repetitive element; |
| 8824 | 21903 | 35443 | 2.93 | 3.5E-02 | BE958970.1 | EST_HUMAN | 601644701R2 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:3929737 3' |
| 10224 | 23260 | 36848 | 0.94 | 3.5E-02 | X76642.1 | NT | L.lactis MG1363 grpE and dnaK genes |
| 10270 | 23305 | 36902 | 0.61 | 3.5E-02 | BE561042.1 | EST_HUMAN | 601344661F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3677654 5' |
| 11785 | 24775 | 38471 | 1.79 | 3.5E-02 | AW861641.1 | EST_HUMAN | PM1-CT0326-291299-002-h03 CT0326 Homo sapiens cDNA |
| 11785 | 24775 | 38472 | 1.79 | 3.5E-02 | AW861641.1 | EST_HUMAN | PM1-CT0326-291299-002-h03 CT0326 Homo sapiens cDNA |
| 12876 | 25583 | | 1.31 | 3.5E-02 | AF009663.1 | NT | Homo sapiens T cell receptor beta locus, TCRBV8S5P to TCRBV21S2A2 region |
| 12955 | 25991 | | 2.71 | 3.5E-02 | BE276948.1 | EST_HUMAN | 601178765F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3543833 5' |
| 592 | 13783 | 26802 | 47.29 | 3.4E-02 | AK024424.1 | NT | Homo sapiens mRNA for FLJ00013 protein, partial cds |
| 592 | 13783 | 26803 | 47.29 | 3.4E-02 | AK024424.1 | NT | Homo sapiens mRNA for FLJ00013 protein, partial cds |
| 593 | 13783 | 26802 | 3.26 | 3.4E-02 | AK024424.1 | NT | Homo sapiens mRNA for FLJ00013 protein, partial cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 593 | 13783 | 26803 | 3.26 | 3.4E-02 | AK024424.1 | NT | Homo sapiens mRNA for FLJ00013 protein, partial cds |
| 1076 | 14242 | 27298 | 2.57 | 3.4E-02 | AW274020.1 | EST_HUMAN | xv26d07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2814253 3' similar to SW:C211_HUMAN P53801 PUTATIVE SURFACE GLYCOPROTEIN C21ORF1 PRECURSOR ; |
| 1233 | 14392 | | 5.43 | 3.4E-02 | 11345459 | NT | Homo sapiens hypothetical protein FLJ13220 (FLJ13220), mRNA |
| 2465 | 15592 | 28717 | 1.7 | 3.4E-02 | T57160.1 | EST_HUMAN | yc20e06.r1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:81250 5' similar to contains MER29 repetitive element |
| 3617 | 16683 | 29694 | 1.5 | 3.4E-02 | AL163208.2 | NT | Homo sapiens chromosome 21 segment HS21C008 |
| 3875 | 17034 | 30032 | 0.81 | 3.4E-02 | BE839514.1 | EST_HUMAN | RC3-FN0155-060700-011-d10 FN0155 Homo sapiens cDNA |
| 4030 | 17186 | 30196 | 3.72 | 3.4E-02 | AW794952.1 | EST_HUMAN | RC6-UM0015-210200-021-A10 UM0015 Homo sapiens cDNA |
| 4720 | 17855 | 30838 | 2.77 | 3.4E-02 | X59799.1 | NT | M.musculus S-antigen gene promoter region |
| 5172 | 18294 | | 1.9 | 3.4E-02 | Q26457 | SWISSPROT | LA PROTEIN HOMOLOG (LA RIBONUCLEOPROTEIN) (LA AUTOANTIGEN HOMOLOG) |
| 5189 | 18311 | 31277 | 1.81 | 3.4E-02 | AJ012469.1 | NT | Caenorhabditis elegans mRNA for DYS-1 protein, partial |
| 6993 | 18512 | 31504 | 4.68 | 3.4E-02 | U24393.1 | NT | Human lysyl oxidase-like protein gene, exon 3 |
| 8456 | 21537 | | 3.15 | 3.4E-02 | AI869629.1 | EST_HUMAN | wl99d04.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2433031 3' |
| 8947 | 22026 | 35567 | 1.18 | 3.4E-02 | AA664886.1 | EST_HUMAN | nu70f08.s1 NCI_CGAP_Alv1 Homo sapiens cDNA clone IMAGE:1216071 similar to contains Alu repetitive element;contains element MER25 MER25 repetitive element ; |
| 9118 | 22197 | | 5.28 | 3.4E-02 | AA194306.1 | EST_HUMAN | zq04f11.s1 Stratagene muscle 937209 Homo sapiens cDNA clone IMAGE:628749 3' similar to TR:G1017425 G1017425 IPISGKPLPKVTLSRDGVPLKATMRFNTEITAENLTINLKESVTADAGRYEITAANSSGTTKAFINIVVLDRPG PPT GPVVISDITEESVTLKWEPPKYDGGSQVTNYILLKRETSTAVWTEVSATVARTMMKVMKL ... ; |
| 9980 | 23019 | | 0.66 | 3.4E-02 | AI092719.1 | EST_HUMAN | oz99h08.x1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1683519 3' |
| 383 | 13591 | | 6.8 | 3.3E-02 | AA398735.1 | EST_HUMAN | zt75e08.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:728198 3' |
| 1193 | 14355 | 27413 | 12.43 | 3.3E-02 | AB035867.1 | NT | Cricetulus griseus CYP2A17 mRNA for cytochrome P450 2A17, complete cds |
| 1669 | 14821 | 27904 | 1.23 | 3.3E-02 | AF110763.1 | NT | Homo sapiens skeletal muscle LIM-protein 1 (FHL1) gene, complete cds |
| 1778 | 14927 | | 1.37 | 3.3E-02 | AE000700.1 | NT | Aquifex aeolicus section 32 of 109 of the complete genome |
| 2149 | 15285 | | 2.02 | 3.3E-02 | R09112.1 | EST_HUMAN | yf25c09.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:127888 5' |
| 3445 | 16613 | 29631 | 0.86 | 3.3E-02 | H02389.1 | EST_HUMAN | yj35h02.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:150771 5' |
| 4293 | 14821 | 27904 | 3.74 | 3.3E-02 | AF110763.1 | NT | Homo sapiens skeletal muscle LIM-protein 1 (FHL1) gene, complete cds |
| 4589 | 17726 | 30709 | 2.24 | 3.3E-02 | 6755862 | NT | Mus musculus tumor rejection antigen gp96 (Tra1), mRNA |
| 6560 | 19722 | 33099 | 26.73 | 3.3E-02 | BF245995.1 | EST_HUMAN | 601853910F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4073787 5' |
| 6560 | 19722 | 33100 | 26.73 | 3.3E-02 | BF245995.1 | EST_HUMAN | 601853910F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4073787 5' |
| 7677 | 20742 | 34223 | 0.63 | 3.3E-02 | AF124162.1 | NT | Nicotiana plumbaginifolia molybdopterin synthase sulphurylase (cnx5) gene, partial cds |
| 9523 | 22588 | 36157 | 0.74 | 3.3E-02 | BF115621.1 | EST_HUMAN | 7m92d04.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:3562423 3' |
| 9523 | 22588 | 36158 | 0.74 | 3.3E-02 | BF115621.1 | EST_HUMAN | 7m92d04.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:3562423 3' |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9624 | 22679 | 36248 | 0.57 | 3.3E-02 | AA488202.1 | EST_HUMAN | ad08f09.s1 Soares_NbHFB Homo sapiens cDNA clone IMAGE:877673 3' similar to gb:X70944_cds1 MYOBLAST CELL SURFACE ANTIGEN 24.1D5 (HUMAN); |
| 9624 | 22679 | 36249 | 0.57 | 3.3E-02 | AA488202.1 | EST_HUMAN | ad08f09.s1 Soares_NbHFB Homo sapiens cDNA clone IMAGE:877673 3' similar to gb:X70944_cds1 MYOBLAST CELL SURFACE ANTIGEN 24.1D5 (HUMAN); |
| 11383 | 24444 | 38104 | 3.28 | 3.3E-02 | BF691107.1 | EST_HUMAN | 602247171F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4332497 5' |
| 12428 | 25303 | | 3.1 | 3.3E-02 | T96545.1 | EST_HUMAN | ye49f11.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:121101 5' |
| 12557 | 25379 | | 1.6 | 3.3E-02 | AF289665.1 | NT | Mus musculus EIF4H gene, partial cds; LIMK1 gene, complete cds; and ELN gene, partial cds |
| 12591 | 25398 | | 1.85 | 3.3E-02 | M81890.1 | NT | Human interleukin 11 (IL11) gene, complete mRNA |
| 134 | 13360 | 26394 | 1.79 | 3.2E-02 | AJ002005.1 | NT | Oryctolagus cuniculus gene encoding ileal sodium-dependent bile acid transporter |
| 1150 | 14314 | 27370 | 6.32 | 3.2E-02 | AF096275.1 | NT | Drosophila melanogaster heat shock protein 68 (hsp68) gene, hsp68d allele, complete cds |
| 1150 | 14314 | 27371 | 6.32 | 3.2E-02 | AF096275.1 | NT | Drosophila melanogaster heat shock protein 68 (hsp68) gene, hsp68d allele, complete cds |
| 1812 | 14961 | 28054 | 1.08 | 3.2E-02 | AF128894.1 | NT | Homo sapiens telomerase reverse transcriptase (TERT) gene, exons 7-16 and complete cds |
| 2187 | 15322 | | 1.09 | 3.2E-02 | P28955 | SWISSPROT | LARGE TEGUMENT PROTEIN |
| 2902 | 13360 | 26394 | 0.87 | 3.2E-02 | AJ002005.1 | NT | Oryctolagus cuniculus gene encoding ileal sodium-dependent bile acid transporter |
| 3204 | 16379 | 29389 | 13.21 | 3.2E-02 | BE867353.1 | EST_HUMAN | 601442431F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3846727 5' |
| 3806 | 16966 | 29970 | 0.94 | 3.2E-02 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 4334 | 17477 | | 16.42 | 3.2E-02 | X94768.1 | NT | H.sapiens RP3 gene (XLRP gene 3) |
| 4890 | 18020 | 31005 | 3.85 | 3.2E-02 | AF114182.1 | NT | Saxifraga nidifica maturase (matK) gene, chloroplast gene encoding chloroplast protein, partial cds |
| 5310 | 18427 | 31397 | 0.93 | 3.2E-02 | AW850159.1 | EST_HUMAN | IL3-CT0219-271099-022-C04 CT0219 Homo sapiens cDNA |
| 5652 | 18846 | 32127 | 1.49 | 3.2E-02 | X68709.1 | NT | S.griseocarneum whiG-Stv gene |
| 5652 | 18846 | 32128 | 1.49 | 3.2E-02 | X68709.1 | NT | S.griseocarneum whiG-Stv gene |
| 6653 | 19812 | 33200 | 2.4 | 3.2E-02 | M32437.1 | NT | Rat/polyomavirus left junction in cell line W98.14 |
| 6656 | 19815 | | 30.91 | 3.2E-02 | T89367.1 | EST_HUMAN | yd33h12.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:110087 3' similar to contains Alu repetitive element;contains LTR1 repetitive element ; |
| 6743 | 19899 | 33290 | 3.7 | 3.2E-02 | AF173845.1 | NT | Saguinus oedipus tissue kallikrein gene, complete cds |
| 7939 | 20989 | 34499 | 0.92 | 3.2E-02 | 11424049 | NT | Homo sapiens cytochrome P450, subfamily IIB (phenobarbital-inducible) (CYP2B), mRNA |
| 8496 | 21577 | 35113 | 8.04 | 3.2E-02 | 6680565 | NT | Mus musculus kinesin family member 3c (Kif3c), mRNA |
| 9141 | 22220 | | 0.67 | 3.2E-02 | AF109718.1 | NT | Homo sapiens chromosome 3 subtelomeric region |
| 9426 | 22500 | 36065 | 1.2 | 3.2E-02 | AI278971.1 | EST_HUMAN | qm17b04.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1882063 3' |
| 9426 | 22500 | 36066 | 1.2 | 3.2E-02 | AI278971.1 | EST_HUMAN | qm17b04.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1882063 3' |
| 10262 | 23297 | | 4.51 | 3.2E-02 | AA719795.1 | EST_HUMAN | zg54b12.s1 Soares_pineal_gland_N3HPG Homo sapiens cDNA clone IMAGE:397151 3' similar to gb:L08441 CYTOCHROME C OXIDASE POLYPEPTIDE III (HUMAN); |
| 10566 | 23601 | 37207 | 1.11 | 3.2E-02 | U96762.1 | NT | Macaca mulatta chemokine receptor CCR5 mRNA, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1289 | 14445 | | 1.92 | 3.1E-02 | 4503416 | NT | Homo sapiens dual specificity phosphatase 4 (DUSP4) mRNA |
| 1333 | 14490 | 27569 | 1.46 | 3.1E-02 | P18845 | SWISSPROT | NEURONAL ACETYLCHOLINE RECEPTOR PROTEIN, ALPHA-3 CHAIN PRECURSOR (GF-ALPHA-3) |
| 1940 | 15083 | 28184 | 1.28 | 3.1E-02 | 6671564 | NT | Mus musculus adaptor-related protein complex AP-3, delta subunit (Ap3d), mRNA |
| 5378 | 18580 | 31449 | 1.29 | 3.1E-02 | U78104.1 | NT | Human leukemia inhibitory factor receptor (LIFR) gene, promoter and partial exon 1 |
| 5476 | 18676 | | 2.6 | 3.1E-02 | AA278478.1 | EST_HUMAN | zs81a06.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:703858 5' |
| 5764 | 18956 | 32259 | 0.77 | 3.1E-02 | BF687742.1 | EST_HUMAN | 602066783F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4065789 5' |
| 8122 | 21204 | | 0.58 | 3.1E-02 | AV696098.1 | EST_HUMAN | AV696098 GKC Homo sapiens cDNA clone GKCAVH09 5' |
| 9142 | 22221 | 35764 | 0.48 | 3.1E-02 | BE965092.2 | EST_HUMAN | 601658879R1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3886291 3' |
| 9339 | 22415 | 35968 | 0.46 | 3.1E-02 | AI872302.1 | EST_HUMAN | wm57d09.x1 NCI_CGAP_Ut2 Homo sapiens cDNA clone IMAGE:2440049 3' |
| 10237 | 23272 | 36864 | 2.67 | 3.1E-02 | AF034779.1 | NT | Enterococcus faecalis surface protein precursor, gene, complete cds |
| 1652 | 14805 | | 2.41 | 3.0E-02 | AF187125.1 | NT | Pityokteines minutus cytochrome oxidase I gene, partial cds; mitochondrial gene for mitochondrial product |
| 2652 | 15775 | 28888 | 1.08 | 3.0E-02 | AA402242.1 | EST_HUMAN | zt65h03.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:727253 5' |
| 3743 | 16904 | 29908 | 2.82 | 3.0E-02 | AF247644.1 | NT | Pseudomonas fluorescens family II aminotransferase gene, complete cds |
| 3839 | 16998 | | 0.93 | 3.0E-02 | AW820223.1 | EST_HUMAN | QV2-ST0296-150200-040-e09 ST0296 Homo sapiens cDNA |
| 4058 | 17214 | | 0.94 | 3.0E-02 | AA364003.1 | EST_HUMAN | EST74530 Pineal gland II Homo sapiens cDNA 5' end |
| 5164 | 18286 | 31250 | 8.17 | 3.0E-02 | AF281074.1 | NT | Homo sapiens neuropilin 2 (NRP2) gene, complete cds, alternatively spliced |
| 5164 | 18286 | 31251 | 8.17 | 3.0E-02 | AF281074.1 | NT | Homo sapiens neuropilin 2 (NRP2) gene, complete cds, alternatively spliced |
| 5507 | 18706 | | 3.21 | 3.0E-02 | AB046793.1 | NT | Homo sapiens mRNA for KIAA1573 protein, partial cds |
| 6384 | 19553 | 32910 | 0.67 | 3.0E-02 | N99615.1 | EST_HUMAN | za39a10.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:294906 5' similar to contains element TAR1 repetitive element ; |
| 6384 | 19553 | 32911 | 0.67 | 3.0E-02 | N99615.1 | EST_HUMAN | za39a10.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:294906 5' similar to contains element TAR1 repetitive element ; |
| 6929 | 20244 | 33677 | 2.87 | 3.0E-02 | AJ242906.1 | NT | Cyprinus carpio mRNA for inducible nitric oxide synthase (iNOS gene) |
| 7047 | 20100 | 33516 | 2.9 | 3.0E-02 | BE889948.1 | EST_HUMAN | 601512206F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913848 5' |
| 7047 | 20100 | 33517 | 2.9 | 3.0E-02 | BE889948.1 | EST_HUMAN | 601512206F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913848 5' |
| 7218 | 20083 | 33497 | 1.92 | 3.0E-02 | AF213884.1 | NT | Homo sapiens nuclear factor of kappa light polypeptide gene enhancer in B-cells 1 (NFKB1) gene, complete cds |
| 7218 | 20083 | 33498 | 1.92 | 3.0E-02 | AF213884.1 | NT | Homo sapiens nuclear factor of kappa light polypeptide gene enhancer in B-cells 1 (NFKB1) gene, complete cds |
| 7380 | 20458 | 33921 | 1.22 | 3.0E-02 | M86524.1 | NT | Human dystrophin gene |
| 8317 | 21399 | | 0.48 | 3.0E-02 | BF679706.1 | EST_HUMAN | 602154364F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4295654 5' |
| 8821 | 21900 | 35439 | 0.55 | 3.0E-02 | BE512670.1 | EST_HUMAN | 601171626F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:3545047 5' |
| 8842 | 21921 | 35459 | 0.74 | 3.0E-02 | BF353889.1 | EST_HUMAN | IL5-HT0704-290600-108-c04 HT0704 Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8993 | 22072 |  | 1.93 | 3.0E-02 | AF275654.1 | NT | Ornithorhynchus anatinus coagulation factor X mRNA, complete cds |
| 10677 | 23711 | 37319 | 2.03 | 3.0E-02 | AE001797.1 | NT | Thermotoga maritima section 109 of 136 of the complete genome |
| 10770 | 23803 | 37425 | 0.47 | 3.0E-02 | Z21211.1 | EST_HUMAN | HSAAADTHS TEST1, Human adult Testis tissue Homo sapiens cDNA clone cam test244 (b) |
| 11508 | 24566 | 38243 | 2.26 | 3.0E-02 | M81367.1 | NT | Human coagulation factor VII (F7) gene exon 1 and factor X (F10) gene, exon 1 |
| 11989 | 24974 | 38678 | 7.11 | 3.0E-02 | AA483216.1 | EST_HUMAN | ne87f04.s1 NCI_CGAP_Kid1 Homo sapiens cDNA clone IMAGE:911263 |
| 12536 | 26168 | 31556 | 1.95 | 3.0E-02 | R32019.1 | EST_HUMAN | yh63d04.s1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:134407 3' |
| 12943 | 25621 |  | 11.62 | 3.0E-02 | AW895565.1 | EST_HUMAN | QV4-NN0038-270400-187-h06 NN0038 Homo sapiens cDNA |
| 12989 | 26161 |  | 4.97 | 3.0E-02 | AF048687.1 | NT | Rattus norvegicus UDP-Gal:glucosylceramide beta-1,4-galactosyltransferase mRNA, complete cds |
| 3650 | 16813 | 29826 | 0.9 | 2.9E-02 | X55294.1 | NT | Sheep gene for ultra high-sulphur keratin protein |
| 4039 | 17195 | 30206 | 0.81 | 2.9E-02 | H72805.1 | EST_HUMAN | yu07e10.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:233130 5' |
| 6188 | 19364 | 32712 | 1.39 | 2.9E-02 | AF060221.1 | NT | Sus scrofa deoxyribonuclease II mRNA, complete cds |
| 6421 | 19590 | 32955 | 6.58 | 2.9E-02 | BF032233.1 | EST_HUMAN | 601452601F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3856598 5' |
| 7398 | 20476 | 33943 | 9.95 | 2.9E-02 | BE271437.1 | EST_HUMAN | 601140729F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3049830 5' |
| 7584 | 20656 | 34133 | 0.65 | 2.9E-02 | D29214.1 | EST_HUMAN | HUMNK262 Human epidermal keratinocyte Homo sapiens cDNA clone 262 |
| 8187 | 21269 | 34793 | 0.82 | 2.9E-02 | AF129279.1 | NT | Buchnera aphidicola natural-host Schlechtendalia chinensis gluconate-6-phosphate dehydrogenase (gnd) gene, partial cds |
| 8187 | 21269 | 34794 | 0.82 | 2.9E-02 | AF129279.1 | NT | Buchnera aphidicola natural-host Schlechtendalia chinensis gluconate-6-phosphate dehydrogenase (gnd) gene, partial cds |
| 9859 | 22899 | 36482 | 2.14 | 2.9E-02 | AW875979.1 | EST_HUMAN | CM3-PT0014-071299-051-c04 PT0014 Homo sapiens cDNA |
| 9859 | 22899 | 36483 | 2.14 | 2.9E-02 | AW875979.1 | EST_HUMAN | CM3-PT0014-071299-051-c04 PT0014 Homo sapiens cDNA |
| 10078 | 23116 |  | 0.65 | 2.9E-02 | AW976597.1 | EST_HUMAN | EST388706 MAGE resequences, MAGN Homo sapiens cDNA |
| 10553 | 23588 | 37196 | 1.25 | 2.9E-02 | AP000064.1 | NT | Aeropyrum pernix genomic DNA, section 7/7 |
| 11303 | 16813 | 29826 | 1.44 | 2.9E-02 | X55294.1 | NT | Sheep gene for ultra high-sulphur keratin protein |
| 12538 | 26057 |  | 1.35 | 2.9E-02 | AU135817.1 | EST_HUMAN | AU135817 PLACE1 Homo sapiens cDNA clone PLACE1002962 5' |
| 579 | 13771 |  | 0.76 | 2.8E-02 | AW970153.1 | EST_HUMAN | EST382234 MAGE resequences, MAGK Homo sapiens cDNA |
| 3453 | 16620 | 29639 | 1.2 | 2.8E-02 | AF066063.1 | NT | Homo sapiens retinal fascin (FSCN2) gene, exon 2 |
| 3453 | 16620 | 29640 | 1.2 | 2.8E-02 | AF066063.1 | NT | Homo sapiens retinal fascin (FSCN2) gene, exon 2 |
| 4430 | 17570 |  | 0.76 | 2.8E-02 | 8393751 | NT | Rattus norvegicus microtubule-associated protein tau (Mapt), mRNA |
| 5605 | 18800 | 31866 | 11 | 2.8E-02 | BE741083.1 | EST_HUMAN | 601594078F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3948067 5' |
| 6948 | 20261 | 33699 | 1.08 | 2.8E-02 | T78960.1 | EST_HUMAN | yd21b08.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:108855 5' |
| 8523 | 21604 | 35142 | 1.67 | 2.8E-02 | AJ005820.1 | NT | Craterostigma plantagineum mRNA for homeodomain leucine zipper protein (hb-1) |
| 9219 | 22297 | 35840 | 0.76 | 2.8E-02 | AA280762.1 | EST_HUMAN | zs98c06.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:711466 5' |
| 9409 | 22483 | 36047 | 1.41 | 2.8E-02 | AF187872.1 | NT | Cavia porcellus inwardly-rectifying potassium channel Kir2.1 (KCNJ2) gene, complete cds |

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## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9513 | 22578 | 36144 | 0.76 | 2.8E-02 | AE001092.1 | NT | Archaeoglobus fulgidus section 15 of 172 of the complete genome |
| 9674 | 22636 | 36207 | 0.47 | 2.8E-02 | J05109.1 | NT | T.thermophila calcium-binding 25 kDa (TCBP 25) protein gene, complete cds |
| 9674 | 22636 | 36208 | 0.47 | 2.8E-02 | J05109.1 | NT | T.thermophila calcium-binding 25 kDa (TCBP 25) protein gene, complete cds |
| 1518 | 14671 | 27753 | 0.96 | 2.7E-02 | U66059.1 | NT | Human germline T-cell receptor beta chain Dopamine-beta-hydroxylase-like, TRY1, TRY2, TRY3, TCRBV27S1P, TCRBV22S1A2N1T, TCRBV9S1A1T, TCRBV7S1A1N2T, TCRBV5S1A1T, TCRBV13S3, TCRBV6S7P, TCRBV7S3A2T, TCRBV13S2A1T, TCRBV9S2A2PT, TCRBV7S2A1N4T, TCRBV13S9/13S> |
| 3518 | 16684 | 29695 | 1.99 | 2.7E-02 | AL161494.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 6 |
| 4319 | 17462 | 30447 | 1.93 | 2.7E-02 | N47258.1 | EST_HUMAN | yy86h12.r1 Soares_multiple_sclerosis_2NbHMSP Homo sapiens cDNA clone IMAGE:280487 5' |
| 4319 | 17462 | 30448 | 1.93 | 2.7E-02 | N47258.1 | EST_HUMAN | yy86h12.r1 Soares_multiple_sclerosis_2NbHMSP Homo sapiens cDNA clone IMAGE:280487 5' |
| 5362 | 18565 | 31432 | 0.6 | 2.7E-02 | BF245672.1 | EST_HUMAN | 601864811F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4083075 5' |
| 5557 | 18755 | 31793 | 1.43 | 2.7E-02 | R12245.1 | EST_HUMAN | yf33d09.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:128657 5' similar to SP:JC2264 JC2264 TISSUE FACTOR PATHWAY INHIBITOR - RHESUS ; |
| 6022 | 19205 | 32525 | 0.69 | 2.7E-02 | X61670.1 | NT | T.aestivum pTTH20 mRNA for wheat type V thionin |
| 6734 | 19890 |  | 1.02 | 2.7E-02 | X97580.1 | NT | A.bisporus pgkA gene |
| 7213 | 20078 | 33491 | 1.92 | 2.7E-02 | AA993571.1 | EST_HUMAN | ot96h03.s1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1624661 3' |
| 8549 | 21630 |  | 1.36 | 2.7E-02 | AI377036.1 | EST_HUMAN | tc28g08.x1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:2065982 3' similar to contains Alu repetitive element; |
| 8816 | 21895 | 35434 | 0.55 | 2.7E-02 | S43442.1 | NT | transmembrane secretory component [human, leukocytes, Genomic, 657 nt, segment 4 of 11] |
| 585 | 13776 | 26796 | 2.52 | 2.6E-02 | AL163282.2 | NT | Homo sapiens chromosome 21 segment HS21C082 |
| 1399 | 14553 |  | 0.99 | 2.6E-02 | AW850515.1 | EST_HUMAN | IL3-CT0219-280100-062-C09 CT0219 Homo sapiens cDNA |
| 2439 | 15567 | 28694 | 2.6 | 2.6E-02 | AA490021.1 | EST_HUMAN | ab02b02.s1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:839595 3' |
| 2441 | 15569 | 28696 | 4.45 | 2.6E-02 | 6754241 | NT | Mus musculus histidine rich calcium binding protein (Hrc), mRNA |
| 2441 | 15569 | 28697 | 4.45 | 2.6E-02 | 6754241 | NT | Mus musculus histidine rich calcium binding protein (Hrc), mRNA |
| 2982 | 16158 |  | 2.07 | 2.6E-02 | AF109906.1 | NT | Mus musculus MHC class III region RD gene, partial cds; Bf, C2, G9A, NG22, G9, HSP70, HSP70, HSC70t, and smRNP genes, complete cds; G7A gene, partial cds; and unknown genes |
| 5025 | 18154 | 31131 | 3.89 | 2.6E-02 | L12032.1 | NT | Chicken dorsalin-1 mRNA, complete cds |
| 5176 | 18298 | 31261 | 1.22 | 2.6E-02 | AE002014.1 | NT | Deinococcus radiodurans R1 section 151 of 229 of the complete chromosome 1 |
| 5203 | 18324 | 31293 | 2.54 | 2.6E-02 | AW241154.1 | EST_HUMAN | xa52b04.x1 NCI_CGAP_Sar4 Homo sapiens cDNA clone IMAGE:2570383 3' similar to SW:Y069_HUMAN Q15041 HYPOTHETICAL PROTEIN KIAA0069 ; |
| 6011 | 19195 |  | 2.94 | 2.6E-02 | AL161563.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 63 |
| 6349 | 19519 |  | 6.85 | 2.6E-02 | AI206030.1 | EST_HUMAN | qg27f11.x1 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1762317 3' |
| 6555 | 19717 | 33093 | 2 | 2.6E-02 | BE621748.1 | EST_HUMAN | 601493473T1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3895578 3' |
| 6966 | 20194 | 33619 | 0.83 | 2.6E-02 | Z99064.1 | NT | Vaccinia virus ORF1L, strain Wyeth |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6966 | 20194 | 33620 | 0.83 | 2.6E-02 | Z99064.1 | NT | Vaccinia virus ORF1L, strain Wyeth |
| 7050 | 20103 | 33520 | 5.63 | 2.6E-02 | 6981271 | NT | Rattus norvegicus Nerve growth factor receptor, fast (Ngfr), mRNA |
| 7449 | 20526 | 33999 | 0.65 | 2.6E-02 | P21894 | SWISSPROT | ALANYL-TRNA SYNTHETASE (ALANINE--TRNA LIGASE) (ALARS) |
| 8703 | 21783 | 35316 | 0.73 | 2.6E-02 | AA860946.1 | EST_HUMAN | ak22f04.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1406719 3' |
| 9560 | 22702 | 36268 | 1.24 | 2.6E-02 | 11432020 | NT | Homo sapiens KIAA1070 protein (KIAA1070), mRNA |
| 9915 | 22955 | 36541 | 0.78 | 2.6E-02 | AF114952.1 | NT | Saccharomyces dairenensis NRRL Y-12639(T) ATP synthase subunit 9 (ATP9) gene, mitochondrial gene encoding mitochondrial protein, complete cds |
| 9915 | 22955 | 36542 | 0.78 | 2.6E-02 | AF114952.1 | NT | Saccharomyces dairenensis NRRL Y-12639(T) ATP synthase subunit 9 (ATP9) gene, mitochondrial gene encoding mitochondrial protein, complete cds |
| 10614 | 23648 | 37257 | 5.37 | 2.6E-02 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 11670 | 24747 | | 1.59 | 2.6E-02 | AA279351.1 | EST_HUMAN | zs84c02.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:704162 5' |
| 11861 | 24849 | 38547 | 1.35 | 2.6E-02 | AW500547.1 | EST_HUMAN | UI-HF-BN0-akj-e-10-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077466 5' |
| 12460 | 26160 | 31553 | 1.43 | 2.6E-02 | BF343827.1 | EST_HUMAN | 602015501F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4160944 5' |
| 12583 | 25392 | | 1.32 | 2.6E-02 | 11422936 | NT | Homo sapiens hypothetical protein FLJ10724 (FLJ10724), mRNA |
| 12947 | 25658 | | 1.39 | 2.6E-02 | R43678.1 | EST_HUMAN | yc86f07.s1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:22846 3' similar to contains DBR repetitive element ; |
| 545 | 13738 | 26762 | 1.75 | 2.5E-02 | AI793130.1 | EST_HUMAN | on26f06.y5 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1557827 5' |
| 545 | 13738 | 26763 | 1.75 | 2.5E-02 | AI793130.1 | EST_HUMAN | on26f06.y5 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1557827 5' |
| 832 | 14010 | 27066 | 9.64 | 2.5E-02 | BE974314.1 | EST_HUMAN | 601680305R2 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3950665 3' |
| 892 | 14068 | 27133 | 5.83 | 2.5E-02 | BE974314.1 | EST_HUMAN | 601680305R2 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3950665 3' |
| 2821 | 15935 | | 2.53 | 2.5E-02 | U12571.1 | NT | Rattus norvegicus rabphilin-3A mRNA, complete cds |
| 3021 | 16197 | 29219 | 2.95 | 2.5E-02 | X99697.1 | NT | H.carterae mRNA for fucoxanthin chlorophyll a/c binding protein, Fcp1 |
| 3021 | 16197 | 29220 | 2.95 | 2.5E-02 | X99697.1 | NT | H.carterae mRNA for fucoxanthin chlorophyll a/c binding protein, Fcp1 |
| 4156 | 18468 | 30302 | 0.92 | 2.5E-02 | BE701165.1 | EST_HUMAN | PM2-NN0128-080700-001-a12 NN0128 Homo sapiens cDNA |
| 4156 | 18468 | 30303 | 0.92 | 2.5E-02 | BE701165.1 | EST_HUMAN | PM2-NN0128-080700-001-a12 NN0128 Homo sapiens cDNA |
| 4322 | 17465 | 30450 | 4.66 | 2.5E-02 | AW592114.1 | EST_HUMAN | hf36h08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2934015 3' |
| 5830 | 19021 | 32327 | 0.72 | 2.5E-02 | AI732776.1 | EST_HUMAN | zx83c10.x5 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:810354 3' |
| 6322 | 19494 | | 4.88 | 2.5E-02 | BE670128.1 | EST_HUMAN | 7e30e09.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284008 3' similar to contains L1.t1 L1 repetitive element ; |
| 6338 | 19508 | | 3.72 | 2.5E-02 | BE746888.1 | EST_HUMAN | 601579393F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3928054 5' |
| 6466 | 19633 | 32994 | 0.8 | 2.5E-02 | L29029.1 | NT | Chlamydomonas reinhardtii VSP-3 mRNA, complete cds |
| 7843 | 20898 | 34400 | 1.72 | 2.5E-02 | BF526722.1 | EST_HUMAN | 602070562F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4213406 5' |
| 7843 | 20898 | 34401 | 1.72 | 2.5E-02 | BF526722.1 | EST_HUMAN | 602070562F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4213406 5' |
| 8008 | 21058 | 34570 | 0.64 | 2.5E-02 | AF129458.1 | NT | Chlamydomonas reinhardtii class II DNA photolyase (PHR2) gene, complete cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8167 | 21249 | 34768 | 0.5 | 2.5E-02 | BE252469.1 | EST_HUMAN | 601108291F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3344278 5' |
| 9025 | 22104 | 35645 | 0.92 | 2.5E-02 | Q91713 | SWISSPROT | CHORDIN PRECURSOR (ORGANIZER-SPECIFIC SECRETED DORSALIZING FACTOR) |
| 9164 | 22242 | 35785 | 0.57 | 2.5E-02 | AW025821.1 | EST_HUMAN | wu08c10.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2516370 3' |
| 10271 | 23306 |  | 0.63 | 2.5E-02 | X71303.1 | NT | D.radicum 28S ribosomal RNA, D2 domain |
| 10810 | 23843 | 37466 | 0.65 | 2.5E-02 | AI147615.1 | EST_HUMAN | qb22a08.x1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:1696982 3' |
| 11048 | 24125 | 37759 | 1.71 | 2.5E-02 | Q10335 | SWISSPROT | HYPOTHETICAL 46.7 KD PROTEIN C19G10.05 IN CHROMOSOME I |
| 11048 | 24125 | 37760 | 1.71 | 2.6E-02 | Q10335 | SWISSPROT | HYPOTHETICAL 46.7 KD PROTEIN C19G10.05 IN CHROMOSOME I |
| 11120 | 24192 |  | 2.93 | 2.5E-02 | AF050157.1 | NT | Mus musculus major histocompatibility locus class II region: major histocompatibility protein class II alpha chain (IAalpha) and major histocompatibility protein class II beta chain (IEbeta) genes, complete cds; butyrophilin-like (NG9), butyrophilin-li> |
| 12065 | 25046 |  | 1.87 | 2.5E-02 | AB007546.1 | NT | Homo sapiens gene for LECT2, complete cds |
| 12419 | 26072 |  | 2.17 | 2.6E-02 | 11420078 | NT | Homo sapiens similar to ALEX3 protein (H. sapiens) (LOC63634), mRNA |
| 12621 | 25934 |  | 1.29 | 2.5E-02 | 11433220 | NT | Homo sapiens mitogen-activated protein kinase kinase kinase 13 (MAP3K13), mRNA |
| 12716 | 25476 |  | 1.83 | 2.5E-02 | U60169.1 | NT | Dictyostelium discoideum putative protein kinase MkcA (mkcA) gene, complete cds |
| 12760 | 25497 | 32032 | 1.58 | 2.5E-02 | BE973327.1 | EST_HUMAN | 601652365R2 NIH_MGC_82 Homo sapiens cDNA clone IMAGE:3935513 3' |
| 178 | 13401 | 26431 | 1.44 | 2.4E-02 | AI378582.1 | EST_HUMAN | tc72c07.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:2070156 3' |
| 1628 | 14780 | 27865 | 1.89 | 2.4E-02 | H65884.1 | EST_HUMAN | yr75f11.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:211149 5' |
| 2102 | 16054 | 28363 | 1.38 | 2.4E-02 | P01901 | SWISSPROT | H-2 CLASS I HISTOCOMPATIBILITY ANTIGEN, K-B ALPHA CHAIN PRECURSOR (H-2K(B)) |
| 2102 | 16054 | 28364 | 1.38 | 2.4E-02 | P01901 | SWISSPROT | H-2 CLASS I HISTOCOMPATIBILITY ANTIGEN, K-B ALPHA CHAIN PRECURSOR (H-2K(B)) |
| 4488 | 17628 | 30609 | 1.69 | 2.4E-02 | J05110.1 | NT | T.thermophila calcium-binding 25 kDa (TCBP 25) protein mRNA, complete cds |
| 6344 | 19514 | 32871 | 0.86 | 2.4E-02 | W86680.1 | EST_HUMAN | zh63h04.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:416791 3' |
| 7370 | 20449 | 33912 | 1.2 | 2.4E-02 | Z20573.1 | EST_HUMAN | HSAAACKVX T, Human adult Rhabdomyosarcoma cell-line Homo sapiens cDNA |
| 7386 | 20464 | 33928 | 1.11 | 2.4E-02 | X12925.1 | NT | Rat gene for uncoupling protein (UCP) |
| 7386 | 20464 | 33929 | 1.11 | 2.4E-02 | X12925.1 | NT | Rat gene for uncoupling protein (UCP) |
| 8074 | 21156 |  | 0.75 | 2.4E-02 | AW813007.1 | EST_HUMAN | RC3-ST0186-230300-019-h06 ST0186 Homo sapiens cDNA |
| 8129 | 21211 |  | 0.57 | 2.4E-02 | M16780.1 | NT | Human retrotransposon 3' long terminal repeat |
| 8636 | 21716 |  | 0.57 | 2.4E-02 | H78376.1 | EST_HUMAN | yu12c05.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:233576 3' similar to contains Alu repetitive element;contains A3R repetitive element ; |
| 8728 | 21808 | 35344 | 11.69 | 2.4E-02 | N69442.1 | EST_HUMAN | za35g11.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:294596 3' similar to gb\|K02909\|RATSR7K Rat (rRNA);contains A3R.b1 A3R repetitive element ; |
| 9187 | 22265 | 35806 | 0.78 | 2.4E-02 | AE001125.1 | NT | Borrelia burgdorferi (section 11 of 70) of the complete genome |
| 9211 | 22289 | 35831 | 0.81 | 2.4E-02 | AA625660.1 | EST_HUMAN | zu91c06.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:745354 3' similar to gb:J04422 ISLET AMYLOID POLYPEPTIDE PRECURSOR (HUMAN);contains Alu repetitive element;contains element XTR XTR repetitive element ; |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9893 | 22933 | 36516 | 0.55 | 2.4E-02 | AF124160.1 | NT | Arabidopsis thaliana molybdopterin synthase sulphurylase (cnx5) gene, complete cds |
| 9893 | 22933 | 36517 | 0.55 | 2.4E-02 | AF124160.1 | NT | Arabidopsis thaliana molybdopterin synthase sulphurylase (cnx5) gene, complete cds |
| 10011 | 23049 | 36643 | 2.75 | 2.4E-02 | AV692954.1 | EST_HUMAN | AV692954 GKC Homo sapiens cDNA clone GKCDSC03 5' |
| 10186 | 23223 | 36817 | 2.82 | 2.4E-02 | AA493894.1 | EST_HUMAN | nh07b12.s1 NCI_CGAP_Thy1 Homo sapiens cDNA clone IMAGE:943583 similar to contains Alu repetitive element;contains element PTR5 repetitive element ; |
| 10839 | 23872 | | 0.5 | 2.4E-02 | BE387111.1 | EST_HUMAN | 601274962F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3615902 5' |
| 11874 | 24862 | 38557 | 2.45 | 2.4E-02 | AF109905.1 | NT | Mus musculus major histocompatibility locus class III regions Hsc70t gene, partial cds; smRNP, G7A, NG23, MutS homolog, CLCP, NG24, NG25, and NG26 genes, complete cds; and unknown genes |
| 11874 | 24862 | 38558 | 2.45 | 2.4E-02 | AF109905.1 | NT | Mus musculus major histocompatibility locus class III regions Hsc70t gene, partial cds; smRNP, G7A, NG23, MutS homolog, CLCP, NG24, NG25, and NG26 genes, complete cds; and unknown genes |
| 12210 | 25163 | | 3.98 | 2.4E-02 | 9627909 | NT | Bacteriophage bIL67, complete genome |
| 12362 | 25260 | 32116 | 4.45 | 2.4E-02 | 6753636 | NT | Mus musculus DinB homolog 1 (E. coli) (Dinb1), mRNA |
| 12478 | 25330 | 32055 | 1.38 | 2.4E-02 | U78167.1 | NT | Rattus norvegicus cAMP-regulated guanine nucleotide exchange factor I (cAMP-GEFI) mRNA, complete cds |
| 12478 | 25330 | 32096 | 1.38 | 2.4E-02 | U78167.1 | NT | Rattus norvegious cAMP-regulated guanine nucleotide exchange factor I (cAMP-GEFI) mRNA, complete cds |
| 12668 | 25445 | | 10.87 | 2.4E-02 | AB008569.1 | NT | Caenorhabditis elegans mRNA for iron-sulfur subunit of mitochondrial succinate dehydrogenase, complete cds |
| 12697 | 25464 | | 1.26 | 2.4E-02 | N42980.1 | EST_HUMAN | yy08a06.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:270610 5' |
| 12883 | 25900 | 31858 | 1.25 | 2.4E-02 | AA179693.1 | EST_HUMAN | zp13h01.r1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:609361 5' |
| 1921 | 15064 | | 5.25 | 2.3E-02 | W05340.1 | EST_HUMAN | za84g08.r1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:299294 5' |
| 1936 | 15079 | | 16.26 | 2.3E-02 | U94165.1 | NT | 4 Homo sapiens mammary tumor-associated protein INT6 (INT6) gene, exon 4 |
| 2065 | 15205 | 28321 | 0.99 | 2.3E-02 | AW797355.1 | EST_HUMAN | CM2-UM0038-290400-172-b11 UM0038 Homo sapiens cDNA |
| 2426 | 15554 | 28681 | 2.68 | 2.3E-02 | Z74293.1 | NT | S.cerevisiae chromosome IV reading frame ORF YDL245c |
| 3773 | 16934 | 29940 | 7.02 | 2.3E-02 | Z20377.1 | EST_HUMAN | HSAAACADH P. Human foetal Brain Whole tissue Homo sapiens cDNA |
| 3807 | 16967 | | 0.67 | 2.3E-02 | L23429.1 | NT | Canis beta-galactosides-binding lectin (LGALS3) mRNA, 3'end |
| 4267 | 17412 | 30398 | 1.17 | 2.3E-02 | L24799.1 | NT | Gallus gallus connexin 45.6 (Cx45.6) gene, complete cds |
| 4267 | 17412 | 30399 | 1.17 | 2.3E-02 | L24799.1 | NT | Gallus gallus connexin 45.6 (Cx45.6) gene, completo cdc |
| 4540 | 17678 | 30660 | 1.08 | 2.3E-02 | AW899107.1 | EST_HUMAN | CM4-NN0080-290400-160-b04 NN0080 Homo sapiens cDNA |
| 4571 | 17709 | 30689 | 0.6 | 2.3E-02 | BE935225.1 | EST_HUMAN | CM3-MT0118-010900-318-g07 MT0118 Homo sapiens cDNA |
| 4571 | 17709 | 30690 | 0.6 | 2.3E-02 | BE935225.1 | EST_HUMAN | CM3-MT0118-010900-318-g07 MT0118 Homo sapiens cDNA |
| 4572 | 18469 | 30691 | 1.2 | 2.3E-02 | AW593693.1 | EST_HUMAN | xs25d08.x1 NCI_CGAP_Ut2 Homo sapiens cDNA clone IMAGE:2770871 3' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4572 | 18469 | 30692 | 1.2 | 2.3E-02 | AW593693.1 | EST_HUMAN | xs25d08.x1 NCI_CGAP_Ut2 Homo sapiens cDNA clone IMAGE:2770671 3' |
| 4717 | 17852 | 30835 | 3.01 | 2.3E-02 | BF026487.1 | EST_HUMAN | 601672279F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3955386 5' |
| 4717 | 17852 | 30836 | 3.01 | 2.3E-02 | BF026487.1 | EST_HUMAN | 601672279F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3955386 5' |
| 5144 | 18267 | 31237 | 0.9 | 2.3E-02 | AW844307.1 | EST_HUMAN | RC2-CN0051-290100-011-a07 CN0051 Homo sapiens cDNA |
| 5265 | 18384 | 31349 | 0.62 | 2.3E-02 | AF257110.1 | NT | Rattus norvegicus guanine nucleotide binding protein gamma subunit 11 mRNA, complete cds |
| 5265 | 18384 | 31350 | 0.62 | 2.3E-02 | AF257110.1 | NT | Rattus norvegicus guanine nucleotide binding protein gamma subunit 11 mRNA, complete cds |
| 5491 | 18690 | 31707 | 3.86 | 2.3E-02 | U86303.1 | NT | Caulobacter crescentus topoisomerase IV ParE subunit (parE) gene, complete cds, and propionyl-CoA carboxylase beta chain (pccB) homolog gene, partial cds |
| 6365 | 19635 | 32894 | 0.62 | 2.3E-02 | BF106464.1 | EST_HUMAN | 601822921R1 NIH_MGC_77 Homo sapiens cDNA clone IMAGE:4042829 3' |
| 6755 | 19911 | 33306 | 4 | 2.3E-02 | AL161605.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 17 |
| 7119 | 18545 | 31456 | 0.69 | 2.3E-02 | BE141475.1 | EST_HUMAN | MR0-HT0080-011099-002-c09 HT0080 Homo sapiens cDNA |
| 7619 | 20689 | 34164 | 0.63 | 2.3E-02 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 8060 | 21143 | 34661 | 4.52 | 2.3E-02 | U63610.1 | NT | Human plectin (PLEC1) gene, exons 3-32, and complete cds |
| 8667 | 21747 | 35285 | 1.12 | 2.3E-02 | AJ298105.1 | NT | Homo sapiens PDX1 gene for lipoyl-containing component X, exons 1-11 |
| 8667 | 21747 | 35286 | 1.12 | 2.3E-02 | AJ298105.1 | NT | Homo sapiens PDX1 gene for lipoyl-containing component X, exons 1-11 |
| 8894 | 21973 | 35509 | 0.75 | 2.3E-02 | AI685380.1 | EST_HUMAN | wa76h10.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2302147 3' |
| 8894 | 21973 | 35510 | 0.75 | 2.3E-02 | AI685380.1 | EST_HUMAN | wa76h10.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2302147 3' |
| 9338 | 22414 | 35967 | 0.84 | 2.3E-02 | P41996 | SWISSPROT | HYPOTHETICAL 55.6 KD PROTEIN B0280.5 IN CHROMOSOME III PRECURSOR |
| 10063 | 23101 | 36704 | 0.94 | 2.3E-02 | P50532 | SWISSPROT | CHROMOSOME ASSEMBLY PROTEIN XCAP-C |
| 10236 | 23271 | 36862 | 1.44 | 2.3E-02 | AE000199.1 | NT | Escherichia coli K-12 MG1655 section 89 of 400 of the complete genome |
| 10236 | 23271 | 36863 | 1.44 | 2.3E-02 | AE000199.1 | NT | Escherichia coli K-12 MG1655 section 89 of 400 of the complete genome |
| 11022 | 24101 | 37739 | 2.38 | 2.3E-02 | P08640 | SWISSPROT | GLUCOAMYLASE S1/S2 PRECURSOR (GLUCAN 1,4-ALPHA-GLUCOSIDASE) (1,4-ALPHA-D-GLUCAN GLUCOHYDROLASE) |
| 12338 | 25919 |  | 3.61 | 2.3E-02 | BE278331.1 | EST_HUMAN | 601179958F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3546567 5' |
| 12801 | 25535 | 32011 | 1.78 | 2.3E-02 | BF528462.1 | EST_HUMAN | 602043629F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4181454 5' |
| 12801 | 25535 | 32012 | 1.78 | 2.3E-02 | BF528462.1 | EST_HUMAN | 602043629F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4181454 5' |
| 12919 | 25604 | 31974 | 2.47 | 2.3E-02 | U39394.1 | NT | Streptomyces sp. alpha-1,3/4-fucosidase precursor gene, complete cds |
| 12975 | 26195 |  | 1.88 | 2.3E-02 | U11077.1 | NT | Dictyostelium discoideum extracellular signal-regulated protein kinase (ERK1) mRNA, complete cds |
| 756 | 13937 | 26982 | 3.59 | 2.2E-02 | AF018267.1 | NT | Columba livia nucleoside diphosphate kinase (NDPK) gene, nuclear gene encoding mitochondrial protein, complete cds |
| 1786 | 14936 |  | 1.79 | 2.2E-02 | 4557448 | NT | Homo sapiens chromodomain helicase DNA binding protein 2 (CHD2) mRNA |
| 1800 | 14949 | 28042 | 2.94 | 2.2E-02 | P07313 | SWISSPROT | MYOSIN LIGHT CHAIN KINASE, SKELETAL MUSCLE (MLCK) |
| 1800 | 14949 | 28043 | 2.94 | 2.2E-02 | P07313 | SWISSPROT | MYOSIN LIGHT CHAIN KINASE, SKELETAL MUSCLE (MLCK) |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2072 | 15212 | 28329 | 2.17 | 2.2E-02 | Z82001.1 | NT | S.pneumoniae pcpA gene and open reading frames |
| 3521 | 16687 | | 2.03 | 2.2E-02 | AA577785.1 | EST_HUMAN | nn24a04.s1 NCI_CGAP_Gas1 Homo sapiens cDNA clone IMAGE:1084782 3' |
| 3736 | 16897 | | 4.09 | 2.2E-02 | AF083094.1 | NT | Infectious bursal disease virus segment B strain IL4 VP1 gene, complete cds |
| 3956 | 17114 | 30116 | 0.98 | 2.2E-02 | AW601317.1 | EST_HUMAN | PM0-BT0340-170100-004-b03 BT0340 Homo sapiens cDNA |
| 4029 | 17185 | 30195 | 0.99 | 2.2E-02 | Z74293.1 | NT | S.cerevisiae chromosome IV reading frame ORF YDL245c |
| 5177 | 18299 | 31262 | 1.37 | 2.2E-02 | Z73597.1 | NT | S.cerevisiae chromosome XVI reading frame ORF YPL241c |
| 7396 | 20474 | 33941 | 3.43 | 2.2E-02 | AV699721.1 | EST_HUMAN | AV699721 GKB Homo sapiens cDNA clone GKBAND03 3' |
| 8566 | 21647 | 35188 | 1.41 | 2.2E-02 | AL161515.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 27 |
| 8566 | 21647 | 35189 | 1.41 | 2.2E-02 | AL161515.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 27 |
| 9009 | 22088 | 36630 | 0.82 | 2.2E-02 | X79468.1 | NT | P.vulgata alpha tub 2 mRNA |
| 9856 | 22896 | 36478 | 0.46 | 2.2E-02 | AJ243025.1 | NT | Mus musculus partial FBPase 2 gene for Fructose-1,6-bisphosphatase, exon 5 and intron 5 |
| 9856 | 22896 | 36479 | 0.46 | 2.2E-02 | AJ243025,1 | NT | Mus musculus partial FBPase 2 gene for Fructose-1,6-bisphosphatase, exon 5 and intron 5 |
| 9888 | 22928 | 36511 | 2.73 | 2.2E-02 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 9888 | 22928 | 36512 | 2.73 | 2.2E-02 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 10409 | 23444 | | 1.26 | 2.2E-02 | 6678140 | NT | Mus musculus Sjogren syndrome antigen A1 (Ssa1), mRNA |
| 12625 | 25421 | | 6.8 | 2.2E-02 | AA503553.1 | EST_HUMAN | ne47h07.s1 NCI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:900541 3' similar to contains Alu repetitive element; |
| 432 | 13627 | | 4.48 | 2.1E-02 | AV761502.1 | EST_HUMAN | AV761502 MDS Homo sapiens cDNA clone MDSADG01 5' |
| 462 | 13657 | | 6.62 | 2.1E-02 | AF029726.1 | NT | Dictyostelium discoideum histidine kinase C (dhkC) mRNA, complete cds |
| 1292 | 14448 | 27514 | 6.65 | 2.1E-02 | U72073.1 | NT | Bacillus subtilis cotKLM cluster, CotK (cotK), CotL (cotL), and spore coat protein CotM (cotM) genes, complete cds |
| 1418 | 14571 | 27644 | 1.31 | 2.1E-02 | AF204395.1 | NT | Mus musculus macrophage migration inhibitory factor (MIF) gene, 5' flanking region and partial cds |
| 1418 | 14571 | 27645 | 1.31 | 2.1E-02 | AF204395.1 | NT | Mus musculus macrophage migration inhibitory factor (MIF) gene, 5' flanking region and partial cds |
| 1823 | 14972 | 28065 | 0.97 | 2.1E-02 | P02438 | SWISSPROT | KERATIN, HIGH-SULFUR MATRIX PROTEIN, B2A |
| 1823 | 14972 | 28066 | 0.97 | 2.1E-02 | P02438 | SWISSPROT | KERATIN, HIGH-SULFUR MATRIX PROTEIN, B2A |
| 1823 | 14972 | 28067 | 0.97 | 2.1E-02 | P02438 | SWISSPROT | KERATIN, HIGH-SULFUR MATRIX PROTEIN, B2A |
| 2019 | 15159 | 28264 | 0.97 | 2.1E-02 | AF190899.1 | NT | Tegula aureotincta major acrosomal protein precursor (TMAP) mRNA, complete cds |
| 2092 | 15232 | 28354 | 1.16 | 2.1E-02 | BE072546.1 | EST_HUMAN | PM2-BT0546-120100-001-f11 BT0546 Homo sapiens cDNA |
| 2092 | 15232 | 28355 | 1.16 | 2.1E-02 | BE072546.1 | EST_HUMAN | PM2-BT0546-120100-001-f11 BT0546 Homo sapiens cDNA |
| 2877 | 13980 | 27032 | 3.12 | 2.1E-02 | N29266.1 | EST_HUMAN | yx43h07.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:264541 5' |
| 3674 | 16837 | 29847 | 1.01 | 2.1E-02 | AA461271.1 | EST_HUMAN | zx63b09.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:796121 5' |
| 4249 | 17395 | 30384 | 0.68 | 2.1E-02 | Z74293.1 | NT | S.cerevisiae chromosome IV reading frame ORF YDL245c |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4427 | 17567 | 30549 | 0.89 | 2.1E-02 | BF343655.1 | EST_HUMAN | 602015306F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4151161 5' |
| 4567 | 17705 | 30685 | 2.14 | 2.1E-02 | U44914.1 | NT | Borrelia burgdorferi plasmid cp32-2, erpC and erpD genes, complete cds; and unknown genes |
| 4577 | 17714 | 30698 | 1.64 | 2.1E-02 | AI768127.1 | EST_HUMAN | wg81d11.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2371509 3' |
| 4831 | 17964 | 30953 | 5.95 | 2.1E-02 | Y08501.1 | NT | A.thaliana mitochondrial genome, part A |
| 4852 | 17985 | 30973 | 0.75 | 2.1E-02 | AA665737.1 | EST_HUMAN | ag55g12.s1 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:1126918 3' |
| 4940 | 18070 | 31048 | 0.89 | 2.1E-02 | AI823432.1 | EST_HUMAN | wh54a05.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2384528 3' |
| 5315 | 18432 | 31402 | 0.91 | 2.1E-02 | BF026405.1 | EST_HUMAN | 601671411F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3954410 5' |
| 5756 | 18948 | 32250 | 0.6 | 2.1E-02 | AW379529.1 | EST_HUMAN | CM4-HT0244-111199-040-h05 HT0244 Homo sapiens cDNA |
| 7212 | 20077 | 33490 | 0.73 | 2.1E-02 | BF086199.1 | EST_HUMAN | QV3-GN0058-120900-329-a12 GN0058 Homo sapiens cDNA |
| 8716 | 21796 | 35333 | 0.66 | 2.1E-02 | 9790238 | NT | Mus musculus sorting nexin 1 (Snx1), mRNA |
| 9703 | 22752 | 36322 | 0.54 | 2.1E-02 | AA984288.1 | EST_HUMAN | am83e07.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:1629732 3' similar to contains Alu repetitive element;contains element MER11 repetitive element ; |
| 9831 | 22871 | 36453 | 2.49 | 2.1E-02 | AJ243213.1 | NT | Homo sapiens partial 5-HT4 receptor gene, exons 2 to 5 |
| 9831 | 22871 | 36454 | 2.49 | 2.1E-02 | AJ243213.1 | NT | Homo sapiens partial 5-HT4 receptor gene, exons 2 to 5 |
| 10189 | 23226 | 36820 | 1.15 | 2.1E-02 | L29324.1 | NT | Streptococcus pneumoniae integrase, excisionase, repressor protein, relaxase, UmuC MucB homolog, and UmuD MucA homolog genes, complete cds; and unknown genes |
| 10266 | 23301 | 36899 | 0.75 | 2.1E-02 | AA984288.1 | EST_HUMAN | am83e07.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:1629732 3' similar to contains Alu repetitive element;contains element MER11 repetitive element ; |
| 10856 | 23889 | 37508 | 0.49 | 2.1E-02 | AP001519.1 | NT | Bacillus halodurans genomic DNA, section 13/14 |
| 11767 | 24777 | 38474 | 1.48 | 2.1E-02 | 6754255 | NT | Mus musculus heat shock protein, 74 kDa, A (Hspa9a), mRNA |
| 12063 | 25044 | 38752 | 1.42 | 2.1E-02 | AW844320.1 | EST_HUMAN | RC4-CN0050-130200-012-h04_1 CN0050 Homo sapiens cDNA |
| 12602 | 18493 |  | 11.16 | 2.1E-02 | Y19213.1 | NT | Homo sapiens putative psihHbA pseudogene for hair keratin, exons 2 to 7 |
| 12647 | 25915 | 31862 | 1.22 | 2.1E-02 | L34170.1 | NT | Human germline UBE1L gene similar to the gene for ubiquitin-activating enzyme, exons 1-22 |
| 13091 | 25712 | 31938 | 3.82 | 2.1E-02 | AF183913.1 | NT | Azospirillum brasilense major outer membrane protein OmaA precursor (omaA) gene, complete cds |
| 19 | 13257 | 26257 | 1.28 | 2.0E-02 | BF002932.1 | EST_HUMAN | 7g51c08.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:3309998 3' similar to contains MER1.t3 MER1 repetitive element ; |
| 20 | 13258 | 26258 | 14.95 | 2.0E-02 | AW895565.1 | EST_HUMAN | QV4-NN0038-270400-187-h05 NN0038 Homo sapiens cDNA |
| 269 | 13488 | 26518 | 5.03 | 2.0E-02 | 6753635 | NT | Mus musculus DinB homolog 1 (E. coli) (Dinb1), mRNA |
| 306 | 13622 | 26556 | 2.95 | 2.0E-02 | AA456538.1 | EST_HUMAN | aa15b10.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:813307 5' |
| 821 | 14000 | 27054 | 3.63 | 2.0E-02 | 6753635 | NT | Mus musculus DinB homolog 1 (E. coli) (Dinb1), mRNA |
| 1111 | 14276 | 27333 | 0.98 | 2.0E-02 | AL096805.1 | NT | Homo sapiens genomic region containing hypervariable minisatellites chromosome 1[1p36.33] of Homo sapiens |
| 1226 | 14386 | 27448 | 0.91 | 2.0E-02 | 8922391 | NT | Homo sapiens hypothetical protein FLJ10379 (FLJ10379), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1226 | 14386 | 27449 | 0.91 | 2.0E-02 | 8922391 | NT | Homo sapiens hypothetical protein FLJ10379 (FLJ10379), mRNA |
| 1922 | 15065 | 28168 | 1.84 | 2.0E-02 | 8922453 | NT | Homo sapiens hypothetical protein FLJ10486 (FLJ10486), mRNA |
| 1922 | 15065 | 28169 | 1.84 | 2.0E-02 | 8922453 | NT | Homo sapiens hypothetical protein FLJ10486 (FLJ10486), mRNA |
| 2859 | 15973 | | 2.09 | 2.0E-02 | AL161532.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 32 |
| 3148 | 13257 | 26257 | 1.56 | 2.0E-02 | BF002932.1 | EST_HUMAN | 7g51c08.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:3309998 3' similar to contains MER1.t3 MER1 repetitive element ; |
| 3213 | 16387 | | 1.13 | 2.0E-02 | 7305474 | NT | Mus musculus sema domain, transmembrane domain (TM), and cytoplasmic domain, (semaphorin) 6B (Sema6b), mRNA |
| 3299 | 16473 | | 1.99 | 2.0E-02 | AF095588.1 | NT | Arabidopsis thaliana C2H2 zinc finger protein FZF mRNA, complete cds |
| 4113 | 17267 | 30267 | 1.57 | 2.0E-02 | M18095.1 | NT | P.vulgaris hydroxyproline-rich glycoprotein (HRGP) mRNA, 3' end |
| 5219 | 18341 | | 0.74 | 2.0E-02 | AI271995.1 | EST_HUMAN | qj83e03.x1 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1866076 3' |
| 6018 | 19201 | 32520 | 0.59 | 2.0E-02 | L35321.2 | NT | Dictyostelium discoideum class VII unconventional myosin (myoI) gene, complete cds |
| 7723 | 20787 | 34275 | 0.95 | 2.0E-02 | AP000004.1 | NT | Pyrococcus horikoshii OT3 genomic DNA, 777001-994000 nt. position (4/7) |
| 7723 | 20787 | 34276 | 0.95 | 2.0E-02 | AP000004.1 | NT | Pyrococcus horikoshii OT3 genomic DNA, 777001-994000 nt. position (4/7) |
| 10081 | 23119 | | 2.39 | 2.0E-02 | U70408.1 | NT | Japanese encephalitis virus envelope protein mRNA, partial cds |
| 10570 | 23605 | 37210 | 1.84 | 2.0E-02 | AI640342.1 | EST_HUMAN | wa17b02.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2298315 3' |
| 10879 | 23964 | 37592 | 1.65 | 2.0E-02 | Z73966.1 | NT | Mycobacterium tuberculosis H37Rv complete genome; segment 93/162 |
| 11653 | 24732 | 38423 | 1.91 | 2.0E-02 | D88184.1 | NT | Equus caballus DNA for 17alpha-hydroxylase/17,20-lyase, complete cds |
| 11978 | 24963 | 38664 | 2.04 | 2.0E-02 | 10947055 | NT | Homo sapiens ankyrin 3, node of Ranvier (ankyrin G) (ANK3), transcript variant 1, mRNA |
| 11978 | 24963 | 38665 | 2.04 | 2.0E-02 | 10947055 | NT | Homo sapiens ankyrin 3, node of Ranvier (ankyrin G) (ANK3), transcript variant 1, mRNA |
| 12149 | 18499 | 31635 | 1.8 | 2.0E-02 | AA456538.1 | EST_HUMAN | aa15b10.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:813307 5' |
| 12644 | 15973 | | 2.26 | 2.0E-02 | AL161532.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 32 |
| 13186 | 25771 | | 5.63 | 2.0E-02 | T80037.1 | EST_HUMAN | yd04c09.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:24676 5' |
| 711 | 13893 | 26929 | 2.42 | 1.9E-02 | AA572764.1 | EST_HUMAN | nf19a07.s1 NCI_CGAP_Pr1 Homo sapiens cDNA clone IMAGE:914196 similar to contains L1.t1 L1 repetitive element ; |
| 2097 | 15237 | 28358 | 4.85 | 1.9E-02 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 2097 | 15237 | 28359 | 4.85 | 1.9E-02 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 2970 | 16146 | 29164 | 9.16 | 1.9E-02 | AA713856.1 | EST_HUMAN | nw04f05.s1 NCI_CGAP_SS1 Homo sapiens cDNA clone IMAGE:1238337 3' |
| 3018 | 16194 | 29217 | 1.92 | 1.9E-02 | AV648669.1 | EST_HUMAN | AV648669 GLC Homo sapiens cDNA clone GLCBLH07 3' |
| 3332 | 16505 | | 0.72 | 1.9E-02 | AB033611.1 | NT | Urotrichus talpoides mitochondrial gene for cytochrome b, complete cds |
| 3699 | 16860 | | 1.12 | 1.9E-02 | N52250.1 | EST_HUMAN | yz28b02.s1 Soares_multiple_sclerosis_2NbHMSP Homo sapiens cDNA clone IMAGE:284331 3' |
| 3793 | 16954 | | 8.1 | 1.9E-02 | BE738088.1 | EST_HUMAN | 601572682F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3839564 5' |
| 3808 | 16968 | 29971 | 0.83 | 1.9E-02 | AI301183.1 | EST_HUMAN | qn04c07.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1897260 3' similar to contains Alu repetitive element; |

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## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4158 | 17309 | 30305 | 1.3 | 1.9E-02 | AF141940.1 | NT | Mycoplasma imitans VihA1 precursor (vihA1) and VihA2 precursor (vihA2) genes, partial cds |
| 4310 | 17453 | 30440 | 1.58 | 1.9E-02 | P09081 | SWISSPROT | HOMEOTIC BICOID PROTEIN (PRD-4) |
| 4310 | 17453 | 30441 | 1.58 | 1.9E-02 | P09081 | SWISSPROT | HOMEOTIC BICOID PROTEIN (PRD-4) |
| 4663 | 17798 | 30785 | 2.79 | 1.9E-02 | AI452999.1 | EST_HUMAN | tj46d04.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2144551 3' similar to contains Alu repetitive element; |
| 5125 | 15701 | 28822 | 4.22 | 1.9E-02 | AL161550.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 50 |
| 5431 | 18631 | 31609 | 0.96 | 1.9E-02 | AF037352.1 | NT | Mus musculus T cell receptor gamma locus, TCR gamma 1 and gamma 3 gene clusters |
| 5585 | 18780 | 31825 | 1.25 | 1.9E-02 | L47572.1 | NT | Meleagris gallopavo paraoxonase-2 (PON2) mRNA, complete cds |
| 5908 | 19097 |  | 0.93 | 1.9E-02 | AB019507.1 | NT | Drosophila kanekoi gene for glycerol-3-phosphate dehydrogenase, complete cds |
| 7250 | 20333 | 33780 | 1.1 | 1.9E-02 | U19241.1 | NT | Homo sapiens interferon-gamma receptor alpha chain gene, exon 1 |
| 7250 | 20333 | 33781 | 1.1 | 1.9E-02 | U19241.1 | NT | Homo sapiens interferon-gamma receptor alpha chain gene, exon 1 |
| 8769 | 21848 |  | 1.33 | 1.9E-02 | AL162754.2 | NT | Neisseria meningitidis serogroup A strain Z2491 complete genome; segment 3/7 |
| 9532 | 22597 | 36169 | 1.21 | 1.9E-02 | BF316129.1 | EST_HUMAN | 601896130F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4125462 5' |
| 9914 | 22954 | 36540 | 0.67 | 1.9E-02 | L10114.1 | NT | Nicotiana tabacum type II phytochrome (phyB) gene, complete cds |
| 10251 | 23286 | 36882 | 1.24 | 1.9E-02 | BF695832.1 | EST_HUMAN | 601852385F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4076253 5' |
| 10458 | 23493 | 37104 | 0.67 | 1.9E-02 | D64001.1 | NT | Synechocystis sp. PCC6803 complete genome, 20/27, 2539000-2644794 |
| 11021 | 24100 | 37738 | 1.91 | 1.9E-02 | AF008938.1 | NT | Vibrio cholerae V86 phage putative replication protein gene, complete cds |
| 12372 | 25924 | 31865 | 4.41 | 1.9E-02 | AF101065.1 | NT | Hirudo medicinalis intermediate filament gliarin mRNA, complete cds |
| 13006 | 25890 |  | 1.46 | 1.9E-02 | L11068.1 | NT | Candida albicans lambda Ca3/B fragment |
| 356 | 13567 | 26595 | 1.67 | 1.8E-02 | AW771104.1 | EST_HUMAN | hn52o06.x1 NCI_CGAP_Co17 Homo sapiens cDNA clone IMAGE:3027274 3' similar to contains element MER29 repetitive element ; |
| 703 | 13886 | 26918 | 1.81 | 1.8E-02 | BF308122.1 | EST_HUMAN | 601894329F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4139983 5' |
| 1186 | 14348 | 27406 | 1.43 | 1.8E-02 | X17664.1 | NT | H.francisci mRNA for myelin basic protein (MBP) |
| 1467 | 14621 | 27704 | 1.38 | 1.8E-02 | AF243382.1 | NT | Drosophila melanogaster cytoplasmic protein encore (enc) mRNA, complete cds |
| 2743 | 15860 | 28972 | 1.74 | 1.8E-02 | AE004544.1 | NT | Pseudomonas aeruginosa PA01, section 105 of 529 of the complete genome |
| 3282 | 16456 |  | 0.94 | 1.8E-02 | AI805829.1 | EST_HUMAN | te52e09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2090296 3' |
| 3993 | 17150 | 30156 | 1.09 | 1.8E-02 | AW879122.1 | EST_HUMAN | MR1-OT0011-280300-009-g04 OT0011 Homo sapiens cDNA |
| 3993 | 17150 | 30157 | 1.09 | 1.8E-02 | AW879122.1 | EST_HUMAN | MR1-OT0011-280300-009-g04 OT0011 Homo sapiens cDNA |
| 4197 | 17347 |  | 1.01 | 1.8E-02 | AA861446.1 | EST_HUMAN | ak24h04.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1406935 3' |
| 4550 | 17688 | 30669 | 1.52 | 1.8E-02 | AW936363.1 | EST_HUMAN | QV4-DT0021-301299-071-b11 DT0021 Homo sapiens cDNA |
| 6069 | 18197 | 31171 | 2.02 | 1.8E-02 | O60810 | SWISSPROT | HYPOTHETICAL PROTEIN DJ845O24.2 |
| 6949 | 20262 | .33700 | 4.44 | 1.8E-02 | P14310 | SWISSPROT | HYPOTHETICAL 7.9 KD PROTEIN IN FIXW 5'REGION |
| 7624 | 20694 | 34170 | 2.3 | 1.8E-02 | BF125690.1 | EST_HUMAN | 601763268F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:4026280 5' |
| 7650 | 20694 | 34170 | 0.61 | 1.8E-02 | BF125690.1 | EST_HUMAN | 601763268F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:4026280 5' |

Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8322 | 21404 | 34931 | 0.88 | 1.8E-02 | U37091.1 | NT | Mus musculus carbonic anhydrase IV gene, complete cds |
| 8663 | 21743 | 35283 | 0.46 | 1.8E-02 | AW905327.1 | EST_HUMAN | QV2-NN1073-220400-159-h09 NN1073 Homo sapiens cDNA |
| 8710 | 21790 | 35326 | 0.76 | 1.8E-02 | 6678943 | NT | Mus musculus microtubule-associated protein 2 (Mtap2), mRNA |
| 9693 | 22742 | 36311 | 0.57 | 1.8E-02 | BF241924.1 | EST_HUMAN | 601877026F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4105303 5' |
| 9693 | 22742 | 36312 | 0.57 | 1.8E-02 | BF241924.1 | EST_HUMAN | 601877026F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4105303 5' |
| 9842 | 22882 | | 2.23 | 1.8E-02 | AA897543.1 | EST_HUMAN | aj62f09.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1394921 3' similar to gb:L11672 ZINC FINGER PROTEIN 91 (HUMAN); |
| 10268 | 23303 | 36900 | 1.7 | 1.8E-02 | BE778274.1 | EST_HUMAN | 601463545F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3866963 5' |
| 10431 | 23466 | 37072 | 1.29 | 1.8E-02 | X96933.1 | NT | L.stagnalis mRNA for myomodulin neuropeptide precursor |
| 11721 | 23907 | 37530 | 1.76 | 1.8E-02 | AB002337.2 | NT | Homo sapiens mRNA for KIAA0339 protein, partial cds |
| 11721 | 23907 | 37531 | 1.76 | 1.8E-02 | AB002337.2 | NT | Homo sapiens mRNA for KIAA0339 protein, partial cds |
| 11912 | 24899 | 38602 | 1.55 | 1.8E-02 | AP000006.1 | NT | Pyrococcus horikoshii OT3 genomic DNA, 1166001-1485000 nt. position (6/7) |
| 11926 | 24912 | 38613 | 2.45 | 1.8E-02 | U62749.1 | NT | Zea mays acidic ribosomal protein P2a-3 (rpp2a-3) mRNA, partial cds |
| 13096 | 25894 | | 1.78 | 1.8E-02 | AF202180.1 | NT | Plasmodium falciparum erythrocyte membrane-associated giant protein antigen 332 (Ag332) gene, partial cds |
| 929 | 14104 | 27167 | 1.34 | 1.7E-02 | BE394869.1 | EST_HUMAN | 601310626F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3632190 5' |
| 1831 | 14979 | 28075 | 2.12 | 1.7E-02 | AW573183.1 | EST_HUMAN | hf34a03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2933740 3' similar to contains L1.t1 L1 repetitive element ; |
| 1831 | 14979 | 28076 | 2.12 | 1.7E-02 | AW573183.1 | EST_HUMAN | hf34a03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2933740 3' similar to contains L1.t1 L1 repetitive element ; |
| 1920 | 15063 | | 2.85 | 1.7E-02 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 2181 | 15316 | | 13.13 | 1.7E-02 | AB004816.1 | NT | Oryctolagus cuniculus mRNA for mitsugumin29, complete cds |
| 2705 | 15823 | | 1.36 | 1.7E-02 | 7657495 | NT | Homo sapiens putative Rab5 GDP/GTP exchange factor homologue (RABEX5), mRNA |
| 3062 | 16238 | 29259 | 0.89 | 1.7E-02 | AI147615.1 | EST_HUMAN | qb22a08.x1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:1696982 3' |
| 3602 | 16766 | | 4.64 | 1.7E-02 | AW827368.1 | EST_HUMAN | hm45a04.x1 NCI_CGAP_RDF1 Homo sapiens cDNA clone IMAGE:3015534 3' similar to contains MER19.b1 MER19 repetitive element ; |
| 3716 | 16877 | | 0.83 | 1.7E-02 | P04929 | SWISSPROT | HISTIDINE-RICH GLYCOPROTEIN PRECURSOR |
| 4284 | 17429 | | 1.23 | 1.7E-02 | AA669618.1 | EST_HUMAN | ac19f04.s1 Stratagene ovary (#937217) Homo sapiens cDNA clone IMAGE:856927 3' similar to contains Alu repetitive element;contains element MER24 repetitive element ; |
| 4317 | 17460 | | 2.02 | 1.7E-02 | R02506.1 | EST_HUMAN | ye86f08.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:124647 5' |
| 4576 | 17713 | 30697 | 0.74 | 1.7E-02 | AI305279.1 | EST_HUMAN | qm08g07.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1881276 3' similar to gb:X52359 ZINC FINGER PROTEIN 30 (HUMAN); |
| 4649 | 17785 | 30768 | 1.32 | 1.7E-02 | AW573183.1 | EST_HUMAN | hf34a03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2933740 3' similar to contains L1.t1 L1 repetitive element ; |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4836 | 17969 | 30957 | 1.91 | 1.7E-02 | V00641.1 | NT | Messenger RNA for anglerfish (Lophius americanus) somatostatin II |
| 4934 | 18064 | | 5.98 | 1.7E-02 | AI015076.1 | EST_HUMAN | ov51e02.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1640858 3' |
| 6253 | 19427 | 32773 | 1.69 | 1.7E-02 | AI769247.1 | EST_HUMAN | wg35f09.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2367113 3' similar to contains Alu repetitive element; |
| 6709 | 19867 | 33256 | 1.23 | 1.7E-02 | AI038280.1 | EST_HUMAN | oy85h03.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1672661 3' |
| 7195 | 20060 | 33471 | 1.26 | 1.7E-02 | AF190930.1 | NT | Macaca fascicularis protein tyrosine phosphatase (PRL-1) mRNA, complete cds |
| 7353 | 20432 | 33894 | 1.9 | 1.7E-02 | 8400716 | NT | Homo sapiens nebulin (NEB), mRNA |
| 7513 | 20587 | 34060 | 1.08 | 1.7E-02 | L07899.1 | NT | Human apolipoprotein (a) gene, exon 1 |
| 7513 | 20587 | 34061 | 1.08 | 1.7E-02 | L07899.1 | NT | Human apolipoprotein (a) gene, exon 1 |
| 7921 | 20972 | | 1.71 | 1.7E-02 | AJ010770.1 | NT | Homo sapiens hyperion gene, exons 1-50 |
| 9636 | 21079 | 34591 | 0.89 | 1.7E-02 | U21854.1 | NT | Caenorhabditis elegans cCAF1 protein gene, complete cds |
| 9900 | 22940 | 36526 | 1.28 | 1.7E-02 | AL040554.1 | EST_HUMAN | DKFZp434I0314_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434I0314 5' |
| 12093 | 25073 | 38780 | 1.66 | 1.7E-02 | 5902007 | NT | Homo sapiens serum constituent protein (MSE55), mRNA |
| 12991 | 26111 | 31667 | 2.35 | 1.7E-02 | AW903482.1 | EST_HUMAN | CM4-NN1030-040400-130-f06 NN1030 Homo sapiens cDNA |
| 13166 | 25757 | 31928 | 1.46 | 1.7E-02 | AA846926.1 | EST_HUMAN | oe08d04.s1 NCI_CGAP_Ov2 Homo sapiens cDNA clone IMAGE:1385287 similar to contains element MSR1 repetitive element ; |
| 524 | 13717 | | 4.05 | 1.6E-02 | AL021929.1 | NT | Mycobacterium tuberculosis H37Rv complete genome; segment 13/162 |
| 1689 | 14841 | 27926 | 1.37 | 1.6E-02 | Y18889.1 | NT | Treponema maltophilum flaB2, flaB3 and fliD genes for flagellin subunit proteins and CAP protein homologue |
| 2323 | 15455 | 28586 | 1.81 | 1.6E-02 | Q64176 | SWISSPROT | LIVER CARBOXYLESTERASE 22 PRECURSOR (EGASYN) (ESTERASE-22) |
| 2323 | 15455 | 28587 | 1.81 | 1.6E-02 | Q64176 | SWISSPROT | LIVER CARBOXYLESTERASE 22 PRECURSOR (EGASYN) (ESTERASE-22) |
| 2631 | 15754 | 28869 | 0.97 | 1.6E-02 | AJ006345.1 | NT | Homo sapiens KVLQT1 gene |
| 2708 | 15826 | 28941 | 1.75 | 1.6E-02 | AA484872.1 | EST_HUMAN | ne81d06.s1 NCI_CGAP_Ew1 Homo sapiens cDNA clone IMAGE:910667 |
| 2758 | 15875 | | 1.01 | 1.6E-02 | AB014534.1 | NT | Homo sapiens mRNA for KIAA0634 protein, partial cds |
| 3614 | 16778 | 29793 | 5.33 | 1.6E-02 | AW850652.1 | EST_HUMAN | IL3-CT0219-160200-063-C07 CT0219 Homo sapiens cDNA |
| 4291 | 17436 | | 1.96 | 1.6E-02 | AF110520.1 | NT | Mus musculus major histocompatibility complex region NG27, NG28, RPS28, NADH oxidoreductase, NG29, KIFC1, Fas-binding protein, BING1, tapasin, RalGDS-like, KE2, BING4, beta 1,3-galactosyl transferase, and RPS18 genes, complete cds; Sacm21 gene, partial> |
| 4415 | 17556 | 30543 | 2.04 | 1.6E-02 | AW875407.1 | EST_HUMAN | QV2-PT0012-140100-030-f07 PT0012 Homo sapiens cDNA |
| 5367 | 18570 | 31438 | 0.59 | 1.6E-02 | AI281385.1 | EST_HUMAN | qu42b09.x1 NCI_CGAP_Lym5 Homo sapiens cDNA clone IMAGE:1967417 3' |
| 5741 | 18934 | 32234 | 1.42 | 1.6E-02 | 6671715 | NT | Mus musculus CD5 antigen (Cd5), mRNA |
| 6780 | 19935 | 33331 | 2.16 | 1.6E-02 | AB015281.1 | NT | Candida albicans CaGCR3 gene, complete cds |
| 7071 | 20124 | 33539 | 1.14 | 1.6E-02 | AB027571.1 | NT | Saccharomyces cerevisiae CAD2 gene for cadmium resistance protein, complete cds |
| 7071 | 20124 | 33540 | 1.14 | 1.6E-02 | AB027571.1 | NT | Saccharomyces cerevisiae CAD2 gene for cadmium resistance protein, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7888 | 20940 | 34446 | 0.96 | 1.6E-02 | AL161508.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 20 |
| 8312 | 21394 | 34919 | 0.74 | 1.6E-02 | AJ277662.1 | NT | Homo sapiens partial TUB gene for tubby (mouse) homolog and LMO1 gene for LIM domain only 1 protein |
| 8372 | 21453 | | 3.37 | 1.6E-02 | X05151.1 | NT | Human apoC-II gene for preproapolipoprotein C-II |
| 10246 | 23281 | | 2.97 | 1.6E-02 | AF079764.1 | NT | Drosophila melanogaster enhancer of polycomb (E(Pc)) mRNA, complete cds |
| 10633 | 23667 | 37276 | 1.61 | 1.6E-02 | AA572818.1 | EST_HUMAN | nf19g03.s1 NCI_CGAP_Pr1 Homo sapiens cDNA clone IMAGE:914260 similar to SW:TELO_RABIT P29294 TELOKIN. [1]; |
| 10633 | 23667 | 37277 | 1.61 | 1.6E-02 | AA572818.1 | EST_HUMAN | nf19g03.s1 NCI_CGAP_Pr1 Homo sapiens cDNA clone IMAGE:914260 similar to SW:TELO_RABIT P29294 TELOKIN. [1]; |
| 11149 | 25868 | 37848 | 2.9 | 1.6E-02 | Z94828.1 | NT | G.gallus microsatellite DNA (LEI0260 (=T16IIIE11)) |
| 11488 | 24547 | 38219 | 2.11 | 1.6E-02 | AL161508.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 20 |
| 11488 | 24547 | 38220 | 2.11 | 1.6E-02 | AL161508.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 20 |
| 11801 | 24791 | 38488 | 2.16 | 1.6E-02 | AI373558.1 | EST_HUMAN | qz96e10.x1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:2042442 3' |
| 12348 | 15455 | 28586 | 3.49 | 1.6E-02 | Q64176 | SWISSPROT | LIVER CARBOXYLESTERASE 22 PRECURSOR (EGASYN) (ESTERASE-22) |
| 12348 | 15455 | 28587 | 3.49 | 1.6E-02 | Q64176 | SWISSPROT | LIVER CARBOXYLESTERASE 22 PRECURSOR (EGASYN) (ESTERASE-22) |
| 770 | 13951 | | 9.38 | 1.5E-02 | 8923734 | NT | Homo sapiens transcription factor (HSA130894), mRNA |
| 2209 | 15343 | 28469 | 3.58 | 1.5E-02 | N39521.1 | EST_HUMAN | yv27b07.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:243925 3' |
| 2244 | 15377 | 28505 | 1.6 | 1.5E-02 | AL161594.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 90 |
| 3128 | 16304 | 29317 | 1.04 | 1.5E-02 | AJ006216.1 | NT | Homo sapiens CACNA1F gene, exons 1 to 48 |
| 3128 | 16304 | 29318 | 1.04 | 1.5E-02 | AJ006216.1 | NT | Homo sapiens CACNA1F gene, exons 1 to 48 |
| 3818 | 16978 | 29982 | 1.14 | 1.5E-02 | BF092942.1 | EST_HUMAN | MR4-TN0115-080900-201-b12 TN0115 Homo sapiens cDNA |
| 4590 | 17727 | 30710 | 0.72 | 1.5E-02 | AF260225.1 | NT | Homo sapiens TESTIN 2 and TESTIN 3 genes, complete cds, alternatively spliced |
| 6423 | 19592 | 32957 | 2.07 | 1.5E-02 | Q09711 | SWISSPROT | HYPOTHETICAL CALCIUM-BINDING PROTEIN C18B11.04 IN CHROMOSOME I |
| 7472 | 20547 | | 1.69 | 1.5E-02 | 11467282 | NT | Cyanophora paradoxa cyanelle, complete genome |
| 7561 | 20633 | 34108 | 1.57 | 1.5E-02 | 11418713 | NT | Homo sapiens KIAA1009 protein (KIAA1009), mRNA |
| 8058 | 21141 | 34660 | 1.38 | 1.5E-02 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 8065 | 21147 | 34668 | 3.06 | 1.5E-02 | 11417739 | NT | Homo sapiens valyl-tRNA synthetase 2 (VARS2), mRNA |
| 9030 | 22109 | 35650 | 1.42 | 1.5E-02 | BF345554.1 | EST_HUMAN | 602019135F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4154504 5' |
| 9668 | 22630 | | 0.58 | 1.5E-02 | AF096774.1 | NT | Homo sapiens kinase-related protein isoform 1 mRNA, complete cds |
| 9770 | 22766 | 36337 | 1.59 | 1.5E-02 | D44606.1 | NT | Saccharomyces cerevisiae chromosome VI plasmid GapC |
| 10016 | 23054 | 36649 | 1.3 | 1.5E-02 | R32667.1 | EST_HUMAN | yh54b10.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:133531 5' |
| 10016 | 23054 | 36650 | 1.3 | 1.5E-02 | R32667.1 | EST_HUMAN | yh54b10.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:133531 5' |
| 10860 | 23893 | 37514 | 0.46 | 1.5E-02 | T92196.1 | EST_HUMAN | ye17f10.s1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:118027 3' |
| 11056 | 24133 | | 1.78 | 1.5E-02 | D26547.1 | NT | Rice gene for thioredoxin h, complete cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11442 | 24503 | 38171 | 2.21 | 1.5E-02 | L40609.1 | NT | Plasmodium falciparum (strain FCR3) variant-specific surface protein (var-2, var-3) genes, complete cds's |
| 12576 | 25970 | | 2.38 | 1.5E-02 | AW750834.1 | EST_HUMAN | RC4-CN0049-140100-011-c11 CN0049 Homo sapiens cDNA |
| 430 | 13626 | | 1.54 | 1.4E-02 | AE002230.2 | NT | Chlamydophila pneumoniae AR39, section 58 of 94 of the complete genome |
| 1142 | 14307 | 27363 | 3.81 | 1.4E-02 | 7705980 | NT | Homo sapiens NESH protein (LOC51225), mRNA |
| 1285 | 14441 | | 2.12 | 1.4E-02 | U32800.1 | NT | Haemophilus influenzae Rd section 115 of 163 of the complete genome |
| 1326 | 14483 | | 2.49 | 1.4E-02 | U67779.1 | NT | Xenopus laevis neurogenin related 1b (X-NGNR-1b) mRNA, complete cds |
| 3284 | 16458 | 29478 | 1.83 | 1.4E-02 | AF160969.2 | NT | Bifidobacterium longum Na+/H+ antiporter (nhaB), cytosine deaminase, and alpha-galactosidase (aglL) genes, complete cds; and N-acetylglucosamine/xylose repressor protein (nagC/xylR) gene, partial cds |
| 3485 | 16653 | 29668 | 1.23 | 1.4E-02 | AW074212.1 | EST_HUMAN | xb09d09.x1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2575793 3' |
| 3573 | 16738 | 29753 | 6.9 | 1.4E-02 | AL161586.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 82 |
| 3573 | 16738 | 29754 | 6.9 | 1.4E-02 | AL161586.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 82 |
| 3608 | 16772 | 29787 | 0.75 | 1.4E-02 | 4503628 | NT | Homo sapiens coagulation factor XII (Hageman factor) (F12), mRNA |
| 3746 | 16907 | 29911 | 12.14 | 1.4E-02 | 6996918 | NT | Mus musculus histocompatibility 2, complement component factor B (H2-Bf), mRNA |
| 4612 | 17749 | 30729 | 9.97 | 1.4E-02 | AW962688.1 | EST_HUMAN | EST374761 MAGE resequences, MAGG Homo sapiens cDNA |
| 4612 | 17749 | 30730 | 9.97 | 1.4E-02 | AW962688.1 | EST_HUMAN | EST374761 MAGE resequences, MAGG Homo sapiens cDNA |
| 4998 | 18127 | 31102 | 6.22 | 1.4E-02 | BE733142.1 | EST_HUMAN | 601567403F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3842280 5' |
| 4998 | 18127 | 31103 | 6.22 | 1.4E-02 | BE733142.1 | EST_HUMAN | 601567403F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3842280 5' |
| 5911 | 26210 | | 0.74 | 1.4E-02 | X91338.1 | NT | H.sapiens La/SS-B pseudogene 3 |
| 6545 | 19707 | 33083 | 4.52 | 1.4E-02 | AA559030.1 | EST_HUMAN | nl11c04.s1 NCI_CGAP_Br2 Homo sapiens cDNA clono IMAGE:1029990 3' similar to contains Alu repetitive element; |
| 6545 | 19707 | 33084 | 4.52 | 1.4E-02 | AA559030.1 | EST_HUMAN | nl11c04.s1 NCI_CGAP_Br2 Homo sapiens cDNA clone IMAGE:1029990 3' similar to contains Alu repetitive element; |
| 8333 | 21415 | | 1.55 | 1.4E-02 | AL022073.1 | NT | Mycobacterium tuberculosis H37Rv complete genome; segment 88/162 |
| 9099 | 22178 | 35722 | 1.44 | 1.4E-02 | M81702.1 | NT | Candida boidinii methanol oxidase (AOD1) gene, complete cds |
| 9356 | 22431 | 35989 | 1.41 | 1.4E-02 | AJ272265.1 | NT | Homo sapiens SPP2 gene for secreted phosphoprotein 24 precursor, exons 1-8 |
| 9600 | 22655 | 36227 | 1.66 | 1.4E-02 | BE544561.1 | EST_HUMAN | 601078239F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3464241 5' |
| 10780 | 23813 | | 0.89 | 1.4E-02 | AL163218.2 | NT | Homo sapiens chromosome 21 segment HS21C018 |
| 12258 | 25194 | 38358 | 8.95 | 1.4E-02 | X60459.1 | NT | Human IFNAR *gene for interferon alpha/beta receptor* |
| 12640 | 25430 | | 1.84 | 1.4E-02 | AF324985.1 | NT | Arabidopsis thaliana F21J9.2 mRNA, complete cds |
| 12959 | 25625 | | 1.45 | 1.4E-02 | 11426968 | NT | Homo sapiens sperm associated antigen 7 (SPAG7), mRNA |
| 13075 | 25704 | | 1.51 | 1.4E-02 | AF238059.2 | NT | Rheum x cultorum NADH dehydrogenase subunit F (ndhF) gene, partial cds; chloroplast gene for chloroplast product |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1913 | 15056 | | 1.19 | 1.3E-02 | BE739263.1 | EST_HUMAN | 601556462F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3826335 5' |
| 2010 | 15150 | 28254 | 2.13 | 1.3E-02 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 2512 | 15638 | 28769 | 0.98 | 1.3E-02 | AE002445.1 | NT | Neisseria meningitidis serogroup B strain MC58 section 87 of 206 of the complete genome |
| 3285 | 16459 | 29479 | 2.41 | 1.3E-02 | BF697081.1 | EST_HUMAN | 602129475F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4286203 5' |
| 3285 | 16459 | 29480 | 2.41 | 1.3E-02 | BF697081.1 | EST_HUMAN | 602129475F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4286203 5' |
| 4076 | 17232 | | 1.22 | 1.3E-02 | AF169288.1 | NT | Mus musculus beta-sarcoglycan gene, complete cds |
| 5275 | 18394 | | 3.02 | 1.3E-02 | D26547.1 | NT | Rice gene for thioredoxin h, complete cds |
| 6360 | 18563 | 31478 | 1.61 | 1.3E-02 | AL049866.2 | NT | Mus musculus chromosome X contigB; X-linked lymphocyte regulated 5 gene, Zinc finger protein 275, Zinc finger protein 92, mmxq28orf |
| 5360 | 18563 | 31479 | 1.61 | 1.3E-02 | AL049866.2 | NT | Mus musculus chromosome X contigB; X-linked lymphocyte regulated 5 gene, Zinc finger protein 275, Zinc finger protein 92, mmxq28orf |
| 6293 | 19466 | 32819 | 1.2 | 1.3E-02 | U80017.1 | NT | Homo sapiens basic transcription factor 2 p44 (btf2p44) gene, partial cds, neuronal apoptosis inhibitory protein (naip) and survival motor neuron protein (smn) genes, complete cds |
| 6327 | 19499 | 32856 | 1.05 | 1.3E-02 | M62962.1 | NT | C.reinhardtii ribulose 1,5-bisphosphate carboxylase/oxygenase activase mRNA, complete cds |
| 7101 | 18528 | 31481 | 1.3 | 1.3E-02 | AL161546.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 46 |
| 7101 | 18528 | 31482 | 1.3 | 1.3E-02 | AL161546.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 46 |
| 7752 | 20812 | 34303 | 4.9 | 1.3E-02 | AI031593.1 | EST_HUMAN | ow06g05.x1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1646072 3' similar to contains Alu repetitive element; |
| 8678 | 21758 | 35294 | 1.67 | 1.3E-02 | AF156961.1 | NT | Homo sapiens human endogenous retrovirus W gagC3.37 G gag (gag) gene, complete cds |
| 10411 | 23446 | 37051 | 1.89 | 1.3E-02 | M63707.1 | NT | Mouse kidney androgen-regulated protein (KAP) gene, complete cds |
| 10485 | 23520 | 37129 | 0.95 | 1.3E-02 | AE001304.1 | NT | Chlamydia trachomatis section 31 of 87 of the complete genome |
| 11239 | 24308 | 37944 | 3.35 | 1.3E-02 | AW268563.1 | EST_HUMAN | xv34e03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2815036 3' |
| 11239 | 24308 | 37945 | 3.35 | 1.3E-02 | AW268563.1 | EST_HUMAN | xv34e03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2815036 3' |
| 12645 | 26127 | | 1.7 | 1.3E-02 | Z99117.1 | NT | Bacillus subtilis complete genome (section 14 of 21): from 2599451 to 2812870 |
| 12753 | 25499 | | 2.56 | 1.3E-02 | 9633069 | NT | Human herpesvirus 6B, complete genome |
| 12965 | 25885 | | 30.16 | 1.3E-02 | AF152238.1 | NT | Homo sapiens V1b vasopressin receptor (VPR3) gene, complete cds |
| 219 | 13441 | | 0.82 | 1.2E-02 | X87344.1 | NT | H.sapiens DMA, DMB, HLA-Z1, IPP2, LMP2, TAP1, LMP7, TAP2, DOB, DQB2 and RING8, 9, 13 and 14 genes |
| 365 | 13575 | 26606 | 4.38 | 1.2E-02 | AA059299.1 | EST_HUMAN | zf65g01.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:381840 5' similar to contains element L1 repetitive element ; |
| 465 | 13660 | 26696 | 1.43 | 1.2E-02 | P38898 | SWISSPROT | HYPOTHETICAL 17.1 KD PROTEIN IN PUR5 3'REGION |
| 757 | 13938 | 26983 | 2.67 | 1.2E-02 | AI183522.1 | EST_HUMAN | qd68e12.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1734670 3' similar to contains L1.t1 L1 repetitive element ; |
| 2246 | 15379 | 28507 | 2.03 | 1.2E-02 | AL163213.2 | NT | Homo sapiens chromosome 21 segment HS21C013 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2514 | 15640 | 28762 | 1.02 | 1.2E-02 | AW172350.1 | EST_HUMAN | xj37e09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2659432 3' |
| 2701 | 15640 | 28762 | 1.43 | 1.2E-02 | AW172350.1 | EST_HUMAN | xj37e09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2659432 3' |
| 3170 | 16345 | | 7.3 | 1.2E-02 | AA075418.1 | EST_HUMAN | zm88e03.r1 Stratagene ovarian cancer (#937219) Homo sapiens cDNA clone IMAGE:545020 5' |
| 3359 | 16531 | 29545 | 2.05 | 1.2E-02 | R62805.1 | EST_HUMAN | yi11b08.s1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:138903 3' |
| 3362 | 16534 | 29548 | 0.59 | 1.2E-02 | AI668694.1 | EST_HUMAN | zb66a07.x5 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:308532 3' similar to contains element MER22 repetitive element ; |
| 5035 | 18163 | 31139 | 2.02 | 1.2E-02 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, RoRet gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| 5154 | 18276 | | 1.97 | 1.2E-02 | AB019786.1 | NT | Cynops pyrrhogaster CpUbiqT mRNA, partial cds |
| 5195 | 18317 | 31286 | 1.31 | 1.2E-02 | AV731704.1 | EST_HUMAN | AV731704 HTF Homo sapiens cDNA clone HTFBHG11 5' |
| 5871 | 19051 | 32368 | 1.78 | 1.2E-02 | D78589.1 | NT | Rana rugosa mRNA for calreticulin, complete cds |
| 6243 | 19417 | 32765 | 0.72 | 1.2E-02 | AF045555.1 | NT | Homo sapiens wbscr1 (WBSCR1) and wbscr5 (WBSCR5) genes, complete cds, alternatively spliced and replication factor C subunit 2 (RFC2) gene, complete cds |
| 7147 | 20282 | 33724 | 8.67 | 1.2E-02 | AF175412.1 | NT | Mus musculus DNA methyltransferase (Dnmt1) gene, exons 2, 3, 4, and 5 |
| 7443 | 20520 | 33993 | 1.42 | 1.2E-02 | H02197.1 | EST_HUMAN | yj34h12.s1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:150695 3' |
| 7465 | 20540 | 34014 | 8.54 | 1.2E-02 | AV732093.1 | EST_HUMAN | AV732093 HTF Homo sapiens cDNA clone HTFBJC09 5' |
| 7729 | 20791 | 34280 | 0.66 | 1.2E-02 | BF216650.1 | EST_HUMAN | 601882949F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4095253 5' |
| 8186 | 21268 | 34792 | 2.3 | 1.2E-02 | Q11205 | SWISSPROT | CMP-N-ACETYLNEURAMINATE-BETA-GALACTOSAMIDE-ALPHA-2,3-SIALYLTRANSFERASE (BETA-GALACTOSIDE ALPHA-2,3-SIALYLTRANSFERASE) (ALPHA 2,3-ST) (GAL-NAC6S) (GAL-BETA-1,3-GALNAC-ALPHA-2,3-SIALYLTRANSFERASE) (ST3GALA.2) (SIAT4-B) |
| 8321 | 21403 | 34929 | 0.56 | 1.2E-02 | R68831.1 | EST_HUMAN | yi43f06.s1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:142019 3' |
| 8321 | 21403 | 34930 | 0.56 | 1.2E-02 | R68831.1 | EST_HUMAN | yi43f06.s1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:142019 3' |
| 8386 | 21467 | 34993 | 1.22 | 1.2E-02 | AF193612.1 | NT | Homo sapiens fringe protein mRNA, partial cds |
| 8386 | 21467 | 34994 | 1.22 | 1.2E-02 | AF193612.1 | NT | Homo sapiens fringe protein mRNA, partial cds |
| 9091 | 22170 | | 1 | 1.2E-02 | T76987.1 | EST_HUMAN | yd72c08.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:113774 3' |
| 9839 | 22879 | 36461 | 2.54 | 1.2E-02 | AB031013.1 | NT | Norwalk-like virus genogroup 2 gene for capsid protein, complete cds |
| 9872 | 22912 | 36497 | 1.24 | 1.2E-02 | AJ246003.1 | NT | Homo sapiens Spast gene for spastin protein |
| 12757 | 25986 | | 1.16 | 1.2E-02 | P17139 | SWISSPROT | COLLAGEN ALPHA 1(IV) CHAIN PRECURSOR |
| 12974 | 25634 | | 6.24 | 1.2E-02 | C18119.1 | EST_HUMAN | C18119 Human placenta cDNA (TFujiwara) Homo sapiens cDNA clone GEN-557G06 5' |
| 1298 | 14454 | 27520 | 1.22 | 1.1E-02 | AA070364.1 | EST_HUMAN | zm69e11.s1 Stratagene neuroepithelium (#937231) Homo sapiens cDNA clone IMAGE:530924 3' |
| 1743 | 14892 | 27986 | 1.48 | 1.1E-02 | X75491.1 | NT | H.sapiens LIPA gene, exon 4 |
| 1743 | 14892 | 27987 | 1.48 | 1.1E-02 | X75491.1 | NT | H.sapiens LIPA gene, exon 4 |
| 2096 | 15236 | 28357 | 5.35 | 1.1E-02 | BF345263.1 | EST_HUMAN | 602018037F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4153808 5' |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2942 | 16119 | | 5.31 | 1.1E-02 | N99523.1 | EST_HUMAN | za40e05.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:295040 5' |
| 3612 | 16776 | 29792 | 3.59 | 1.1E-02 | AI653508.1 | EST_HUMAN | tq95b10.x1 NCI_CGAP_Ov23 Homo sapiens cDNA clone IMAGE:2216539 3' similar to SW:XPF_HUMAN Q92889 DNA-REPAIR PROTEIN COMPLEMENTING XP-F CELL ; |
| 4222 | 17370 | | 0.66 | 1.1E-02 | AW813796.1 | EST_HUMAN | RC3-ST0197-120200-015-g11 ST0197 Homo sapiens cDNA |
| 4951 | 18081 | 31057 | 1.27 | 1.1E-02 | AL048383.2 | EST_HUMAN | DKFZp586E0924_s1 586 (synonym: hute1) Homo sapiens cDNA clone DKFZp586E0924 |
| 6277 | 19451 | 32800 | 0.89 | 1.1E-02 | U66480.1 | NT | Bacillus subtilis SpoVK (spoVK), YnbA (ynbA), YnbB (ynbB), GlnR (glnR), glutamine synthetase (glnA), YnaA (ynaA), YnaB (ynaB), YnaC (ynaC), YnaD (ynaD), YnaE (ynaE), YnaF (ynaF), YnaG (ynaG), YnaH (ynaH), YnaI (ynaI), YnaJ (ynaJ), xylan beta-1,4-xylosi> |
| 7773 | 20830 | 34321 | 2.19 | 1.1E-02 | BE149611.1 | EST_HUMAN | RC1-HT0256-100300-016-h07 HT0256 Homo sapiens cDNA |
| 7989 | 21039 | 34551 | 1.25 | 1.1E-02 | 9631294 | NT | Melanoplus sanguinipes entomopoxvirus, complete genome |
| 8451 | 21532 | 35061 | 0.46 | 1.1E-02 | P80394 | SWISSPROT | METALLOTHIONEIN (MT-1/MT-2) |
| 8451 | 21532 | 35062 | 0.46 | 1.1E-02 | P80394 | SWISSPROT | METALLOTHIONEIN (MT-1/MT-2) |
| 8841 | 21920 | 35458 | 0.69 | 1.1E-02 | AW996160.1 | EST_HUMAN | QV3-BN0045-220300-128-h02 BN0045 Homo sapiens cDNA |
| 9022 | 22101 | 35641 | 0.7 | 1.1E-02 | C04803.1 | EST_HUMAN | C04803 Human heart cDNA (YNakamura) Homo sapiens cDNA clone 3NHC4040 |
| 9103 | 22182 | 35727 | 7.44 | 1.1E-02 | Q61982 | SWISSPROT | NEUROGENIC LOCUS NOTCH 3 PROTEIN |
| 10133 | 23171 | 36769 | 2.02 | 1.1E-02 | AA082578.1 | EST_HUMAN | zn24a01.r1 Stratagene neuroepithelium NT2RAMI 937234 Homo caplens cDNA clone IMAGE:548328 5' |
| 10299 | 23334 | 36939 | 4.06 | 1.1E-02 | AA314665.1 | EST_HUMAN | EST186494 Colon carcinoma (HCC) cell line II Homo sapiens cDNA 5' end |
| 11224 | 24293 | 37934 | 2.41 | 1.1E-02 | 11435505 | NT | Homo sapiens T-box 5 (TBX5), mRNA |
| 12195 | 25152 | | 4.01 | 1.1E-02 | AA668239.1 | EST_HUMAN | ab77f11.s1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:853005 3' similar to contains Alu repetitive element; |
| 7 | 13245 | 26247 | 8.82 | 1.0E-02 | AW846120.1 | EST_HUMAN | MR3-CT0176-111099-003-e10 CT0176 Homo sapiens cDNA |
| 1552 | 14705 | 27785 | 0.97 | 1.0E-02 | AW368128.1 | EST_HUMAN | CM2-HT0177-041099-017-h12 HT0177 Homo sapiens cDNA |
| 2638 | 15761 | | 1.71 | 1.0E-02 | AA806389.1 | EST_HUMAN | oc22h08.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1350495 3' |
| 3159 | 16334 | 29344 | 2.88 | 1.0E-02 | BE835556.1 | EST_HUMAN | RC0-FN0025-250500-021-d02 FN0025 Homo sapiens cDNA |
| 3336 | 16509 | 29525 | 1.24 | 1.0E-02 | BE968999.1 | EST_HUMAN | 601649987R1 NIH_MGC_74 Homo sapiens cDNA clone IMAGE:3933689 3' |
| 3598 | 16762 | | 0.7 | 1.0E-02 | AW845621.1 | EST_HUMAN | MR0-CT0060-081099-003-h10 CT0060 Homo sapiens cDNA |
| 3986 | 17143 | 30148 | 0.85 | 1.0E-02 | AI065086.1 | EST_HUMAN | HA0921 Human fetal liver cDNA library Homo sapiens cDNA |
| 4002 | 17159 | 30165 | 0.59 | 1.0E-02 | AL163302.2 | NT | Homo sapiens chromosome 21 segment HS21C102 |
| 4899 | 18029 | 31017 | 5 | 1.0E-02 | 6753521 | NT | Mus musculus corticotropin releasing hormone receptor 2 (Crhr2), mRNA |
| 4969 | 18098 | 31074 | 4.14 | 1.0E-02 | R96567.1 | EST_HUMAN | yq54h01.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:199633 5' |
| 5116 | 18243 | 31208 | 0.83 | 1.0E-02 | AL161593.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 89 |
| 5242 | 18364 | 31332 | 1.96 | 1.0E-02 | P06599 | SWISSPROT | EXTENSIN PRECURSOR |
| 5532 | 18729 | 31745 | 0.81 | 1.0E-02 | H52681.1 | EST_HUMAN | yu36h11.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:235941 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5865 | 19055 | 32362 | 0.66 | 1.0E-02 | AF309388.1 | NT | Mus musculus transcription complex subunit NF-ATc4 (Nfatc4) gene, exons 1 and 2 |
| 6242 | 19416 | 32764 | 1.29 | 1.0E-02 | AF257303.1 | NT | Mus musculus synaptotagmin II (Syt2) gene, complete cds |
| 6310 | 19482 | 32836 | 2.78 | 1.0E-02 | AW577113.1 | EST_HUMAN | MR4-BT0356-070100-201-h01 BT0356 Homo sapiens cDNA |
| 6310 | 19482 | 32837 | 2.78 | 1.0E-02 | AW577113.1 | EST_HUMAN | MR4-BT0356-070100-201-h01 BT0356 Homo sapiens cDNA |
| 6901 | 20216 | 33646 | 1.69 | 1.0E-02 | Z29642.1 | NT | Z.mays U3snRNA pseudogene |
| 9593 | 22648 | 36219 | 6.34 | 1.0E-02 | BF036331.1 | EST_HUMAN | 601459570F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3863177 5' |
| 9593 | 22648 | 36220 | 6.34 | 1.0E-02 | BF036331.1 | EST_HUMAN | 601459570F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3863177 5' |
| 11542 | 24598 |  | 2.12 | 1.0E-02 | AF157559.1 | NT | Crithidia fasciculata 27 kDa guide RNA-binding protein mRNA, complete cds; mitochondrial gene for mitochondrial product |
| 11573 | 24628 |  | 1.7 | 1.0E-02 | AI417961.1 | EST_HUMAN | tg55h07.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2112733 3' similar to gb:X15183_cds1 HEAT SHOCK PROTEIN HSP 90-ALPHA (HUMAN);contains Alu repetitive element;contains element MER5 repetitive element ; |
| 11649 | 24728 | 38420 | 1.95 | 1.0E-02 | AV760016.1 | EST_HUMAN | AV760016 MDS Homo sapiens cDNA clone MDSBDC10 5' |
| 12278 | 26206 |  | 1.76 | 1.0E-02 | Q62203 | SWISSPROT | SPLICEOSOME ASSOCIATED PROTEIN 62 (SAP 62) (SPLICING FACTOR 3A SUBUNIT 2) (SF3A66) |
| 12339 | 25941 | 31762 | 3.58 | 1.0E-02 | AW935521.1 | EST_HUMAN | RC2-DT0007-120200-016-h02 DT0007 Homo sapiens cDNA |
| 12355 | 26002 |  | 4.31 | 1.0E-02 | S70330.1 | NT | Homo sapiens renal dipeptidase (RDP) gene, complete cds |
| 12764 | 25974 |  | 1.4 | 1.0E-02 | AJ276505.1 | NT | Mus musculus genomic fragment, 279 Kb, chromosome 7 |
| 12949 | 26060 |  | 2.91 | 1.0E-02 | X62654.1 | NT | H.sapiens gene for Me491/CD63 antigen |
| 916 | 14091 | 27156 | 5.69 | 9.0E-03 | AI796126.1 | EST_HUMAN | wh42f09.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2383433 3' similar to contains element MER22 MER22 repetitive element ; |
| 1293 | 14449 |  | 1.66 | 9.0E-03 | BE781889.1 | EST_HUMAN | 601470242F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3873346 5' |
| 2469 | 15596 | 28721 | 2.64 | 9.0E-03 | AL161659.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 59 |
| 2971 | 16147 | 29165 | 0.81 | 9.0E-03 | AI251744.1 | EST_HUMAN | qh90f09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1854281 3' |
| 2971 | 16147 | 29166 | 0.81 | 9.0E-03 | AI251744.1 | EST_HUMAN | qh90f09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1854281 3' |
| 3758 | 16919 | 29921 | 0.66 | 9.0E-03 | J05184.1 | NT | S.acidocaldarius thermopsin gene, complete cds |
| 5931 | 19117 |  | 1.19 | 9.0E-03 | AI809792.1 | EST_HUMAN | wf77f04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2361631 3' |
| 6766 | 19922 |  | 4.01 | 9.0E-03 | BE745988.1 | EST_HUMAN | 601573438F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3834752 5' |
| 7623 | 20693 | 34169 | 0.61 | 9.0E-03 | AI242219.1 | EST_HUMAN | qh87c12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1853974 3' |
| 7640 | 20709 | 34188 | 0.91 | 9.0E-03 | 8922570 | NT | Homo sapiens hypothetical protein FLJ10650 (FLJ10650), mRNA |
| 8059 | 21142 |  | 0.8 | 9.0E-03 | AL039991.1 | EST_HUMAN | DKFZp434L0412_r1 434 (synonym: htco3) Homo sapiens cDNA clone DKFZp434L0412 5' |
| 8443 | 21524 |  | 0.54 | 9.0E-03 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 10050 | 23088 | 36690 | 0.54 | 9.0E-03 | P26011 | SWISSPROT | INTEGRIN BETA-7 PRECURSOR (INTEGRIN BETA-P) (M290 IEL ANTIGEN) |
| 10066 | 23104 | 36707 | 1.47 | 9.0E-03 | P20908 | SWISSPROT | COLLAGEN ALPHA 1(V) CHAIN PRECURSOR |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11232 | 24301 | | 1.68 | 9.0E-03 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 11951 | 24937 | 38638 | 1.31 | 9.0E-03 | L11144.1 | NT | Homo sapiens preprogalanin (GAL1) gene, exons 1, 2, and 3 |
| 11951 | 24937 | 38639 | 1.31 | 9.0E-03 | L11144.1 | NT | Homo sapiens preprogalanin (GAL1) gene, exons 1, 2, and 3 |
| 12494 | 26208 | | 2.07 | 9.0E-03 | BF351141.1 | EST_HUMAN | PM1-HT0452-291299-001-e09 HT0452 Homo sapiens cDNA |
| 12722 | 26200 | | 37.58 | 9.0E-03 | BE348385.1 | EST_HUMAN | hw17b09.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3183161 3' |
| 12838 | 25558 | 32016 | 1.21 | 9.0E-03 | AL163267.2 | NT | Homo sapiens chromosome 21 segment HS21C067 |
| 13074 | 25703 | | 17.6 | 9.0E-03 | BF351141.1 | EST_HUMAN | PM1-HT0452-291299-001-e09 HT0452 Homo sapiens cDNA |
| 514 | 13708 | | 3.15 | 8.0E-03 | AA723007.1 | EST_HUMAN | zh30e03.s1 Soares_pineal_gland_N3HPG Homo sapiens cDNA clone IMAGE:413696 3' similar to contains Alu repetitive element; |
| 1013 | 14185 | 27246 | 12.69 | 8.0E-03 | AF106656.1 | NT | Homo sapiens adenylosuccinate lyase gene, complete cds |
| 2226 | 15360 | 28489 | 1.87 | 8.0E-03 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 2617 | 15741 | 28853 | 3.05 | 8.0E-03 | P10266 | SWISSPROT | RETROVIRUS-RELATED POL POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; ENDONUCLEASE] |
| 3442 | 16610 | 29628 | 1.02 | 8.0E-03 | AJ131016.1 | NT | Homo sapiens SCL gene locus |
| 3766 | 16927 | 29930 | 1.81 | 8.0E-03 | P32644 | SWISSPROT | HYPOTHETICAL 127.0 KD PROTEIN IN RAD24-BMH1 INTERGENIC REGION |
| 3766 | 16927 | 29931 | 1.81 | 8.0E-03 | P32644 | SWISSPROT | HYPOTHETICAL 127.0 KD PROTEIN IN RAD24-BMH1 INTERGENIC REGION |
| 4372 | 17516 | 30495 | 1.15 | 8.0E-03 | BE840049.1 | EST_HUMAN | QV0-FN0181-140700-304-g10 FN0181 Homo sapiens cDNA |
| 4502 | 17642 | 30627 | 5.73 | 8.0E-03 | BF363327.1 | EST_HUMAN | CM4-NN0119-300600-223-b05 NN0119 Homo sapiens cDNA |
| 4839 | 17972 | 30961 | 0.63 | 8.0E-03 | P03181 | SWISSPROT | HYPOTHETICAL BHLF1 PROTEIN |
| 4839 | 17972 | 30962 | 0.63 | 8.0E-03 | P03181 | SWISSPROT | HYPOTHETICAL BHLF1 PROTEIN |
| 5271 | 18390 | 31358 | 0.94 | 8.0E-03 | AU140261.1 | EST_HUMAN | AU140261 PLACE2 Homo sapiens cDNA clone PLACE2000223 5' |
| 5640 | 18834 | 31911 | 2.8 | 8.0E-03 | AF110520.1 | NT | Mus musculus major histocompatibility complex region NG27, NG28, RPS28, NADH oxidoreductase, NG29, KIFC1, Fas-binding protein, BING1, tapasin, RalGDS-like, KE2, BING4, beta 1,3-galactosyl transferase, and RPS18 genes, complete cds; Sacm21 gene, partial> |
| 6328 | 25823 | 32857 | 1.27 | 8.0E-03 | AP000002.1 | NT | Pyrococcus horikoshii OT3 genomic DNA, 287001-544000 nt. position (2/7) |
| 6889 | 20041 | 33450 | 4.4 | 8.0E-03 | P55577 | SWISSPROT | PROBABLE PEPTIDASE Y4NA |
| 7069 | 20112 | | 1.06 | 8.0E-03 | V01109.1 | NT | Human BK virus (strain MM) genome. (Closely related to SV40.) |
| 7357 | 20436 | 33898 | 1.43 | 8.0E-03 | M17197.1 | NT | A.californica (marine gastropod mollusc) neuropeptide gene (bag cell), exon 1, 5' end |
| 7714 | 20779 | | 1.8 | 8.0E-03 | AB038267.1 | NT | Tursiops truncatus mRNA for p40-phox, complete cds |
| 9084 | 22163 | 35707 | 0.64 | 8.0E-03 | P98160 | SWISSPROT | BASEMENT MEMBRANE-SPECIFIC HEPARAN SULFATE PROTEOGLYCAN CORE PROTEIN PRECURSOR (HSPG) (PERLECAN) (PLC) |
| 9111 | 22190 | 35734 | 3.53 | 8.0E-03 | AW808692.1 | EST_HUMAN | MR1-ST0111-111199-011-h06 ST0111 Homo sapiens cDNA |
| 9180 | 22258 | 35801 | 0.68 | 8.0E-03 | 9789956 | NT | Mus musculus fusion 2 (human) (Fus2), mRNA |
| 10154 | 23191 | | 4.75 | 8.0E-03 | BE086509.1 | EST_HUMAN | QV1-BT0677-040400-131-g03 BT0677 Homo sapiens cDNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11005 | 24084 | 37721 | 2.01 | 8.0E-03 | BE788441.1 | EST_HUMAN | 601475619F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3878405 5' |
| 11231 | 24300 | | 2.79 | 8.0E-03 | Z49652.1 | NT | S.cerevisiae chromosome X reading frame ORF YJR152w |
| 11663 | 24742 | 38433 | 1.39 | 8.0E-03 | AA828817.1 | EST_HUMAN | od80a09.s1 NCI_CGAP_Ov2 Homo sapiens cDNA clone IMAGE:1374232 |
| 11663 | 24742 | 38434 | 1.39 | 8.0E-03 | AA828817.1 | EST_HUMAN | od80a09.s1 NCI_CGAP_Ov2 Homo sapiens cDNA clone IMAGE:1374232 |
| 12015 | 24999 | 38701 | 4.37 | 8.0E-03 | AF064589.1 | NT | Homo sapiens melanoma-associated antigen (MAGE-C1) gene, complete cds |
| 12205 | 25159 | | 1.89 | 8.0E-03 | M69035.1 | NT | Oryctolagus cuniculus eIF-2a kinase mRNA, complete cds |
| 12252 | 25191 | | 7.14 | 8.0E-03 | AB038161.1 | NT | Homo sapiens ABCG1 gene for ABC transporter (ATP-binding cassette, sub-family G (WHITE), member 1), complete cds |
| 13145 | 25959 | | 1.16 | 8.0E-03 | AI277806.1 | EST_HUMAN | qm58c09.x1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:1892752 3' |
| 712 | 13894 | 26930 | 12.35 | 7.0E-03 | AF097183.1 | NT | Cryptosporidium parvum HC-10 gene, complete cds |
| 712 | 13894 | 26931 | 12.35 | 7.0E-03 | AF097183.1 | NT | Cryptosporidium parvum HC-10 gene, complete cds |
| 999 | 14170 | 27231 | 3.26 | 7.0E-03 | AF243376.1 | NT | Glycine max glutathione S-transferase GST 21 mRNA, partial cds |
| 1140 | 14305 | 27361 | 3.55 | 7.0E-03 | AV731712.1 | EST_HUMAN | AV731712 HTF Homo sapiens cDNA clone HTFAZF10 5' |
| 1395 | 14549 | | 1.03 | 7.0E-03 | Q61060 | SWISSPROT | FORKHEAD BOX PROTEIN D3 (HNF3/FH TRANSCRIPTION FACTOR GENESIS) (HEPATOCYTE NUCLEAR FACTOR 3 FORKHEAD HOMOLOG 2) (HFH-2) |
| 1426 | 14580 | 27653 | 3.39 | 7.0E-03 | AA668298.1 | EST_HUMAN | ab79b09.s1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:853145 3' |
| 1632 | 14685 | 27764 | 3.28 | 7.0E-03 | AW303599.1 | EST_HUMAN | xv21b02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2813739 3' |
| 2332 | 16060 | 28698 | 2 | 7.0E-03 | P04929 | SWISSPROT | HISTIDINE-RICH GLYCOPROTEIN PRECURSOR |
| 2695 | 15815 | | 0.98 | 7.0E-03 | AW772132.1 | EST_HUMAN | hn67h07.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3032989 3' similar to contains Alu repetitive element; |
| 3648 | 16811 | 29824 | 0.65 | 7.0E-03 | AI150273.1 | EST_HUMAN | qf34h02.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1751955 3' |
| 3863 | 17023 | 30022 | 0.71 | 7.0E-03 | AW444463.1 | EST_HUMAN | UI-H-BI3-akb-c-10-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2733691 3' |
| 3914 | 17073 | 30071 | 1.13 | 7.0E-03 | AF196344.1 | NT | Rattus norvegicus neuronal nicotinic acetylcholine receptor subunit (Alpha10) mRNA, complete cds |
| 4128 | 17023 | 30022 | 0.77 | 7.0E-03 | AW444463.1 | EST_HUMAN | UI-H-BI3-akb-c-10-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2733691 3' |
| 4721 | 17856 | | 0.98 | 7.0E-03 | AW630888.1 | EST_HUMAN | hh89a05.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2969936 5' |
| 5103 | 18231 | | 6.54 | 7.0E-03 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 5940 | 19126 | | 0.72 | 7.0E-03 | H71106.1 | EST_HUMAN | yr82g01.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:211824 5' similar to gb:X14723 CLUSTERIN PRECURSOR (HUMAN); |
| 6238 | 25821 | | 4.42 | 7.0E-03 | AW861059.1 | EST_HUMAN | RC1-CT0286-050400-018-c08 CT0286 Homo sapiens cDNA |
| 6444 | 19611 | 32974 | 1.67 | 7.0E-03 | W68251.1 | EST_HUMAN | zd33f10.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:342475 5' |
| 6667 | 19826 | 33213 | 2.92 | 7.0E-03 | AA327129.1 | EST_HUMAN | EST30674 Colon I Homo sapiens cDNA 5' end |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6695 | 19853 | 33243 | 1.05 | 7.0E-03 | BE857385.1 | EST_HUMAN | 7g34b10.x1 NCI_CGAP_Bm23 Homo sapiens cDNA clone IMAGE:3308347 3' similar to TR:Q13387 Q13387 HYPOTHETICAL PROTEIN 384D8_2. ;contains TAR1.t2 TAR1 TAR1 repetitive element ; |
| 7228 | 20133 | 33550 | 1.93 | 7.0E-03 | BE928133.1 | EST_HUMAN | CM2-CT0478-230800-347-b11 CT0478 Homo sapiens cDNA |
| 7689 | 20754 | 34238 | 4.76 | 7.0E-03 | Z35838.1 | NT | S.cerevisiae chromosome II reading frame ORF YBL077w |
| 7689 | 20754 | 34239 | 4.76 | 7.0E-03 | Z35838.1 | NT | S.cerevisiae chromosome II reading frame ORF YBL077w |
| 8031 | 21114 | 34632 | 0.59 | 7.0E-03 | AJ229043.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22, segment 3/3 |
| 8031 | 21114 | 34633 | 0.59 | 7.0E-03 | AJ229043.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22, segment 3/3 |
| 8302 | 21384 | 34905 | 2.48 | 7.0E-03 | BE175667.1 | EST_HUMAN | RC5-HT0582-160300-011-D02 HT0582 Homo sapiens cDNA |
| 8813 | 21892 | 35433 | 0.58 | 7.0E-03 | AF281074.1 | NT | Homo sapiens neuropilin 2 (NRP2) gene, complete cds, alternatively spliced |
| 9597 | 22652 |  | 0.64 | 7.0E-03 | AF111168.2 | NT | Homo sapiens serine palmitoyl transferase, subunit II gene, complete cds; and unknown genes |
| 9794 | 22834 | 36414 | 0.68 | 7.0E-03 | N52378.1 | EST_HUMAN | yw49c10.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:246066 3' similar to contains Alu repetitive element; |
| 9921 | 22961 | 36548 | 2.72 | 7.0E-03 | P48982 | SWISSPROT | BETA-GALACTOSIDASE PRECURSOR (LACTASE) |
| 9921 | 22961 | 36549 | 2.72 | 7.0E-03 | P48982 | SWISSPROT | BETA-GALACTOSIDASE PRECURSOR (LACTASE) |
| 10513 | 23548 |  | 1.34 | 7.0E-03 | AV687379.1 | EST_HUMAN | AV687379 GKC Homo sapiens cDNA clone GKCAFC07 5' |
| 10704 | 23737 |  | 0.82 | 7.0E-03 | AI799734.1 | EST_HUMAN | wc37e09.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2320840 3' |
| 10800 | 23833 | 37456 | 0.47 | 7.0E-03 | BE164643.1 | EST_HUMAN | PM3-HT0344-181199-002-g06 HT0344 Homo sapiens cDNA |
| 11065 | 24141 | 37776 | 2.41 | 7.0E-03 | AB008852.1 | NT | Bos taurus mRNA for NDP52, complete cds |
| 11140 | 24212 | 37838 | 1.55 | 7.0E-03 | AJ004862.1 | NT | Homo sapiens partial MUC5B gene, exon 1-29 |
| 11140 | 24212 | 37839 | 1.55 | 7.0E-03 | AJ004862.1 | NT | Homo sapiens partial MUC5B gene, exon 1-29 |
| 12792 | 26189 |  | 1.95 | 7.0E-03 | H94065.1 | EST_HUMAN | yv15h01.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:242833 3' similar to contains Alu repetitive element; |
| 12800 | 25534 |  | 1.46 | 7.0E-03 | BE263253.1 | EST_HUMAN | 601145154F2 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3160476 5' |
| 12908 | 25601 |  | 1.76 | 7.0E-03 | Y17455.1 | NT | Homo sapiens LSFR2 gene, penultimate exon |
| 13058 | 26186 |  | 1.68 | 7.0E-03 | AL163300.2 | NT | Homo sapiens chromosome 21 segment HS21C100 |
| 1269 | 14427 | 27494 | 8.76 | 6.0E-03 | AW511148.1 | EST_HUMAN | hd22a05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2910224 3' similar to SW:PXR_HUMAN O75469 ORPHAN NUCLEAR RECEPTOR PXR ; |
| 1269 | 14427 | 27495 | 8.76 | 6.0E-03 | AW511148.1 | EST_HUMAN | hd22a05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2910224 3' similar to SW:PXR_HUMAN O75469 ORPHAN NUCLEAR RECEPTOR PXR ; |
| 2831 | 15945 | 29054 | 0.94 | 6.0E-03 | AF112374.1 | NT | Danio rerio odorant receptor gene cluster |
| 2956 | 16133 | 29147 | 3.29 | 6.0E-03 | AA759135.1 | EST_HUMAN | ah78e11.s1 Soares_testis_NHT Homo sapiens cDNA clone 1321772 3' |
| 2956 | 16133 | 29148 | 3.29 | 6.0E-03 | AA759135.1 | EST_HUMAN | ah78e11.s1 Soares_testis_NHT Homo sapiens cDNA clone 1321772 3' |
| 3318 | 16491 |  | 2.27 | 6.0E-03 | H75690.1 | EST_HUMAN | yr77h04.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:211351 5' |

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## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3378 | 16550 | | 0.63 | 6.0E-03 | AF190338.1 | NT | Notoncus sp. cytochrome c oxidase subunit II gene, partial cds; mitochondrial gene for mitochondrial product |
| 3469 | 16636 | 29655 | 1.25 | 6.0E-03 | U90880.1 | NT | Fugu rubripes zinc finger protein, isotocin, fatty acid binding protein, sepiapterin reductase and vasotocin genes, complete cds |
| 3469 | 16636 | 29656 | 1.25 | 6.0E-03 | U90880.1 | NT | Fugu rubripes zinc finger protein, isotocin, fatty acid binding protein, sepiapterin reductase and vasotocin genes, complete cds |
| 3636 | 16800 | | 1.11 | 6.0E-03 | W37985.1 | EST_HUMAN | zo13a11.r1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:322172 5' |
| 3750 | 16911 | 29914 | 3.73 | 6.0E-03 | BF510986.1 | EST_HUMAN | UI-H-BI4-apm-c-06-0-UI.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3087754 3' |
| 3877 | 17036 | 30034 | 1.31 | 6.0E-03 | 6754029 | NT | Mus musculus glucosamine-6-phosphate deaminase (Gnpi), mRNA |
| 4032 | 17188 | 30199 | 0.6 | 6.0E-03 | AW847284.1 | EST_HUMAN | RC0-CT0204-240999-021-b10 CT0204 Homo sapiens cDNA |
| 4067 | 17223 | | 1.26 | 6.0E-03 | BE250108.1 | EST_HUMAN | 600942904F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2959513 5' |
| 4484 | 17624 | | 1.54 | 6.0E-03 | AI016833.1 | EST_HUMAN | ov33o11.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1639124 3' |
| 4817 | 17950 | 30935 | 7.9 | 6.0E-03 | AA324242.1 | EST_HUMAN | EST27116 Cerebellum II Homo sapiens cDNA 5' end similar to EST containing Alu repeat |
| 5305 | 18422 | 31392 | 0.6 | 6.0E-03 | AA889972.1 | EST_HUMAN | aj95g09.s1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1404256 3' |
| 6281 | 25822 | 32803 | 0.68 | 6.0E-03 | 9627521 | NT | Variola virus, complete genome |
| 6956 | 20269 | 33707 | 0.8 | 6.0E-03 | O14994 | SWISSPROT | SYNAPSIN III |
| 6994 | 18513 | 31505 | 0.97 | 6.0E-03 | BE253748.1 | EST_HUMAN | 601112363F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3353172 5' |
| 7399 | 20477 | 33944 | 0.65 | 6.0E-03 | AA299442.1 | EST_HUMAN | EST11949 Uterus tumor I Homo sapiens cDNA 5' end |
| 7399 | 20477 | 33945 | 0.65 | 6.0E-03 | AA299442.1 | EST_HUMAN | EST11949 Uterus tumor I Homo sapiens cDNA 5' end |
| 7824 | 20879 | 34380 | 0.8 | 6.0E-03 | AF128894.1 | NT | Homo sapiens telomerase reverse transcriptase (TERT) gene, exons 7-16 and complete cds |
| 8042 | 21125 | 34646 | 6.71 | 6.0E-03 | AI033980.1 | EST_HUMAN | ow13a04.x1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1646670 3' similar to contains MER10.b1 MER10 repetitive element ; |
| 8161 | 21243 | 34763 | 2.76 | 6.0E-03 | AW799337.1 | EST_HUMAN | RC0-UM0051-210300-032-g02 UM0051 Homo sapiens cDNA |
| 8236 | 21318 | | 1.65 | 6.0E-03 | BF038198.1 | EST_HUMAN | 601454915F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3858626 5' |
| 9754 | 22692 | 36262 | 7.03 | 6.0E-03 | D10548.1 | NT | Subacute sclerosing panencephalitis (SSPE) virus mRNA for fusion protein |
| 10249 | 23284 | | 2.49 | 6.0E-03 | AI432661.1 | EST_HUMAN | ti22c02.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2131202 3' similar to SW:R13A_HUMAN P40429 60S RIBOSOMAL PROTEIN L13A ; |
| 10365 | 23400 | 37011 | 0.75 | 6.0E-03 | AJ011849.1 | NT | Bacillus subtilis fenD gene |
| 10503 | 23638 | | 0.91 | 6.0E-03 | AF084555.1 | NT | Homo sapiens okadaic acid-inducible and cAMP-regulated phosphoprotein 19 (ARPP-19) mRNA, complete cds |
| 10615 | 23649 | 37258 | 0.64 | 6.0E-03 | X68366.1 | NT | M.thermoformicicum complete plasmid pFV1 DNA |
| 10661 | 23695 | | 0.54 | 6.0E-03 | AF245505.1 | NT | Homo sapiens adlican mRNA, complete cds |
| 10983 | 24062 | 37697 | 1.56 | 6.0E-03 | AW962164.1 | EST_HUMAN | EST374237 MAGE resequences, MAGG Homo sapiens cDNA |
| 11049 | 24126 | | 1.94 | 6.0E-03 | 11545814 | NT | Homo sapiens hypothetical zinc finger protein FLJ14011 (FLJ14011), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11228 | 24297 | | 4.1 | 6.0E-03 | U14566.1 | NT | Mus musculus zinc-finger protein mRNA, complete cds |
| 11229 | 24298 | 37938 | 2.66 | 6.0E-03 | BE737895.1 | EST_HUMAN | 601572746F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:3839747 5' |
| 12321 | 25232 | | 2.04 | 6.0E-03 | AF010496.1 | NT | Rhodobacter capsulatus strain SB1003, partial genome |
| 12425 | 25998 | | 1.3 | 6.0E-03 | BF671185.1 | EST_HUMAN | 602151024F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4292212 5' |
| 12451 | 25926 | | 4.65 | 6.0E-03 | AE000833.1 | NT | Methanobacterium thermoautotrophicum from bases 429192 to 450286 (section 39 of 148) of the complete genome |
| 12532 | 25993 | | 2.49 | 6.0E-03 | U30790.1 | NT | Pneumocystis carinii f. sp. ratti guanine nucleotide binding protein alpha subunit (pcg1) gene, complete cds |
| 12590 | 25397 | | 1.63 | 6.0E-03 | Q62209 | SWISSPROT | SYNAPTONEMAL COMPLEX PROTEIN 1 (SCP-1 PROTEIN) |
| 12944 | 25622 | | 2.41 | 6.0E-03 | AJ245480.1 | NT | Brassica napus sig gene for S-locus glycoprotein, cultivar T2 |
| 13095 | 26018 | | 1.61 | 6.0E-03 | X74807.1 | NT | R.norvegicus VEGP2 gene |
| 13147 | 25746 | | 1.19 | 6.0E-03 | BF110298.1 | EST_HUMAN | 7n36b11.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3566564 3' |
| 686 | 13871 | 26903 | 1.69 | 5.0E-03 | L25105.1 | NT | Chlamydia trachomatis partial ORFB; aminoacyl-tRNA synthase, complete cds; complete ORFA, and grpE-like protein, complete cds |
| 686 | 13871 | 26904 | 1.59 | 5.0E-03 | L25105.1 | NT | Chlamydia trachomatis partial ORFB; aminoacyl-tRNA synthase, complete cds; complete ORFA, and grpE-like protein, complete cds |
| 687 | 13871 | 26903 | 3.08 | 5.0E-03 | L25105.1 | NT | Chlamydia trachomatis partial ORFB; aminoacyl-tRNA synthase, complete cds; complete ORFA, and grpE-like protein, complete cds |
| 687 | 13871 | 26904 | 3.08 | 5.0E-03 | L25105.1 | NT | Chlamydia trachomatis partial ORFB; aminoacyl-tRNA synthase, complete cds; complete ORFA, and grpE-like protein, complete cds |
| 1136 | 14301 | 27357 | 1.47 | 5.0E-03 | AJ010457.1 | NT | Arabidopsis thaliana mRNA for DEAD box RNA helicase,RH3 |
| 1601 | 14754 | | 1.08 | 5.0E-03 | AI138977.1 | EST_HUMAN | qd79d05.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1735689 3' |
| 2746 | 15863 | 28974 | 2.43 | 5.0E-03 | AB033006.1 | NT | Homo sapiens mRNA for KIAA1180 protein, partial cds |
| 3206 | 16381 | 29392 | 3.87 | 5.0E-03 | T87623.1 | EST_HUMAN | yc81f09.s1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:22395 3' |
| 3223 | 16397 | | 2.72 | 5.0E-03 | AL161491.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 3 |
| 3235 | 16409 | 29423 | 1.17 | 5.0E-03 | R71794.1 | EST_HUMAN | yj86g02.s1 Soares breast 2NbHBst Homo sapiens cDNA clone IMAGE:155666 3' |
| 3351 | 16523 | | 0.84 | 5.0E-03 | AJ297357.1 | NT | Homo sapiens partial LIMD1 gene for LIM domains containing protein 1 and KIAA0851 gene |
| 3790 | 16951 | 29957 | 5.28 | 5.0E-03 | AF147449.2 | NT | Pseudomonas aeruginosa strain PAO1 penicillin-binding protein 1B (ponB) gene, complete cds |
| 3854 | 17014 | 30014 | 0.61 | 5.0E-03 | U38914.1 | NT | Citrus sinensis seed storage protein citrin mRNA, complete cds |
| 4079 | 17235 | | 1.64 | 5.0E-03 | AA299675.1 | EST_HUMAN | EST12218 Uterus tumor I Homo sapiens cDNA 5' end |
| 4241 | 17387 | 30374 | 0.65 | 5.0E-03 | AJ002125.1 | NT | Natrix domestica Zfx type gene |
| 4421 | 17562 | 30546 | 0.71 | 5.0E-03 | H78355.1 | EST_HUMAN | yu79g10.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:240066 5' |
| 4423 | 17014 | 30014 | 0.76 | 5.0E-03 | U38914.1 | NT | Citrus sinensis seed storage protein citrin mRNA, complete cds |
| 4731 | 17866 | 30848 | 0.92 | 5.0E-03 | AJ131016.1 | NT | Homo sapiens SCL gene locus |

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## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4841 | 17974 | 30964 | 1.56 | 5.0E-03 | AI752367.1 | EST_HUMAN | cn15c02.x1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn15c02 random |
| 5286 | 18405 | | 1.9 | 5.0E-03 | 4758747 | NT | Homo sapiens myosin-binding protein C, fast-type (MYBPC2) mRNA |
| 5916 | 19104 | 32417 | 5.4 | 5.0E-03 | P35500 | SWISSPROT | SODIUM CHANNEL PROTEIN PARA (PARALYTIC PROTEIN) |
| 6169 | 19345 | 32691 | 2.82 | 5.0E-03 | O00507 | SWISSPROT | PROBABLE UBIQUITIN CARBOXYL-TERMINAL HYDROLASE FAF-Y (UBIQUITIN THIOLESTERASE FAF-Y) (UBIQUITIN-SPECIFIC PROCESSING PROTEASE FAF-Y) (DEUBIQUITINATING ENZYME FAF-Y) (FAT FACETS PROTEIN RELATED, Y-LINKED) (UBIQUITIN-SPECIFIC PROTEASE 9, Y CHROMOSOME) |
| 6204 | 19379 | | 0.88 | 5.0E-03 | AE002234.2 | NT | *Chlamydophila pneumoniae* AR39, section 62 of 94 of the complete genome |
| 6726 | 19882 | | 7.34 | 5.0E-03 | BE300091.1 | EST_HUMAN | 600944564T1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2960871 3' |
| 6986 | 18505 | 31520 | 7.22 | 5.0E-03 | AB025024.1 | NT | Mus musculus AMD1 gene for S-adenosylmethionine decarboxylase, complete cds |
| 7185 | 20050 | | 0.85 | 5.0E-03 | AB038267.1 | NT | Tursiops truncatus mRNA for p40-phox, complete cds |
| 7237 | 20321 | 33765 | 0.61 | 6.0E-03 | 6753651 | NT | Mus musculus dynein, axon, heavy chain 11 (Dnaho11), mRNA |
| 7654 | 20722 | 34198 | 0.7 | 5.0E-03 | T05124.1 | EST_HUMAN | EST03012 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBCR93 similar to EST containing Alu repeat |
| 7774 | 20831 | | 1.21 | 5.0E-03 | AW854327.1 | EST_HUMAN | RC3-CT0255-031099-011-f07 CT0255 Homo sapiens cDNA |
| 7944 | 20994 | 34505 | 7.18 | 5.0E-03 | AB016816.1 | NT | Homo sapiens MASL1 mRNA, complete cds |
| 8415 | 21496 | 35027 | 0.81 | 5.0E-03 | AW855907.1 | EST_HUMAN | RC6-CT0281-081199-011-A05 CT0281 Homo sapiens cDNA |
| 8415 | 21496 | 35028 | 0.81 | 5.0E-03 | AW855907.1 | EST_HUMAN | RC6-CT0281-081199-011-A05 CT0281 Homo sapiens cDNA |
| 8433 | 21514 | 35045 | 1.99 | 5.0E-03 | P48982 | SWISSPROT | BETA-GALACTOSIDASE PRECURSOR (LACTASE) |
| 8811 | 21890 | | 5.83 | 5.0E-03 | M61132.1 | NT | Mouse complement receptor (CR2) mRNA, 3' end |
| 9007 | 22086 | 35629 | 1.21 | 5.0E-03 | D90723.1 | NT | Escherichia coli genomic DNA. (19.1 - 19.4 min) |
| 9140 | 22219 | 35763 | 0.52 | 5.0E-03 | M25090.1 | NT | Rabbit uteroglobin (UGL) gene, exon 1 |
| 10044 | 23082 | 36684 | 1.03 | 5.0E-03 | L21710.1 | NT | Plasmodium berghei 58 kDa phosphoprotein mRNA, partial cds |
| 10176 | 23213 | 36805 | 0.74 | 5.0E-03 | AW821888.1 | EST_HUMAN | RC0-ST0379-210100-032-c02 ST0379 Homo sapiens cDNA |
| 10360 | 23395 | 37006 | 0.56 | 5.0E-03 | AA533143.1 | EST_HUMAN | nj46h10.s1 NCI_CGAP_Pr9 Homo sapiens cDNA clone IMAGE:995587 |
| 10539 | 23574 | 37181 | 0.47 | 5.0E-03 | 7662557 | NT | Homo sapiens PRO0471 protein (PRO0471), mRNA |
| 10696 | 23729 | | 0.47 | 5.0E-03 | AA653261.1 | EST_HUMAN | ag49c10.s1 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:1126290 3' |
| 10959 | 24040 | | 4.79 | 5.0E-03 | T19586.1 | EST_HUMAN | 694F Heart Homo sapiens cDNA clone 694 |
| 11181 | 24250 | 37884 | 2.39 | 5.0E-03 | AW170334.1 | EST_HUMAN | xn59g05.x1 Soares_NHCeC_cervical_tumor Homo sapiens cDNA clone IMAGE:2698040 3' similar to contains L1.t2 L1 repetitive element ; |
| 11181 | 24250 | 37885 | 2.39 | 5.0E-03 | AW170334.1 | EST_HUMAN | xn59g05.x1 Soares_NHCeC_cervical_tumor Homo sapiens cDNA clone IMAGE:2698040 3' similar to contains L1.t2 L1 repetitive element ; |
| 11297 | 24363 | 38004 | 1.76 | 5.0E-03 | T49153.1 | EST_HUMAN | yb09e04.r1 Stratagene placenta (#937225) Homo sapiens cDNA clone IMAGE:70686 5' |

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## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11615 | 24666 |  | 3.41 | 5.0E-03 | BE048055.1 | EST_HUMAN | tz46c04.y1 NCI_CGAP_Brn52 Homo sapiens cDNA clone IMAGE:2291622 5' |
| 12070 | 25051 | 38759 | 1.4 | 5.0E-03 | AJ276505.1 | NT | Mus musculus genomic fragment, 279 Kb, chromosome 7 |
| 12070 | 25051 | 38760 | 1.4 | 5.0E-03 | AJ276505.1 | NT | Mus musculus genomic fragment, 279 Kb, chromosome 7 |
| 12467 | 26144 |  | 11.86 | 5.0E-03 | AF047874.1 | NT | Gallus gallus glyceraldehyde-3-phosphate dehydrogenase mRNA, complete cds |
| 12616 | 25414 |  | 21.79 | 5.0E-03 | AF067253.1 | NT | Brugia malayi Y chromosome marker |
| 12718 | 25478 |  | 2.03 | 5.0E-03 | L10347.1 | NT | Human pro-alpha1 type II collagen (COL2A1) gene exons 1-54, complete cds |
| 12760 | 25504 |  | 1.94 | 5.0E-03 | AA456597.1 | EST_HUMAN | zx75a03.s1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:809548 3' similar to SW:DXA2_MOUSE P14685 PROBABLE DIPHENOL OXIDASE A2 COMPONENT ; |
| 12802 | 25935 |  | 5.99 | 5.0E-03 | BF572332.1 | EST_HUMAN | 602077774F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4252002 5' |
| 13002 | 25651 | 31951 | 2.66 | 5.0E-03 | AW449109.1 | EST_HUMAN | UI-H-BI3-akf-f-08-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2734216 3' |
| 242 | 13464 | 26493 | 1.54 | 4.0E-03 | AW500196.1 | EST_HUMAN | UI-HF-BN0-ako-h-04-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3076831 5' |
| 331 | 13545 | 26575 | 1.75 | 4.0E-03 | R46482.1 | EST_HUMAN | yg51e04.s1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:35988 3' |
| 456 | 13651 | 26689 | 1.36 | 4.0E-03 | P54675 | SWISSPROT | PHOSPHATIDYLINOSITOL 3-KINASE 3 (PI3-KINASE) (PTDINS-3-KINASE) (PI3K) |
| 616 | 13805 | 26825 | 4.37 | 4.0E-03 | AA939339.1 | EST_HUMAN | on75g12.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1562566 3' |
| 900 | 14075 | 27142 | 1.65 | 4.0E-03 | R46482.1 | EST_HUMAN | yg51e04.s1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:35988 3' |
| 934 | 14109 |  | 2.85 | 4.0E-03 | AW749101.1 | EST_HUMAN | RC3-BT0333-110100-012-f01 BT0333 Homo sapiens cDNA |
| 1174 | 14337 | 27393 | 34.06 | 4.0E-03 | AA099777.1 | EST_HUMAN | zl81a08.r1 Stratagene colon (#937204) Homo sapiens cDNA clone IMAGE:510998 5' |
| 1196 | 14358 | 27417 | 1.83 | 4.0E-03 | AW794740.1 | EST_HUMAN | RC6-UM0014-170400-023-G01 UM0014 Homo sapiens cDNA |
| 1331 | 14488 | 27556 | 1.48 | 4.0E-03 | AA284374.1 | EST_HUMAN | zs59a01.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:701736 5' |
| 1783 | 14932 | 28026 | 2.68 | 4.0E-03 | U33472.1 | NT | Rattus norvegicus type 1 astrocyte and olfactory-limbic associated protein AT1-46 mRNA, complete cds |
| 2076 | 15215 | 28334 | 17.33 | 4.0E-03 | AA099777.1 | EST_HUMAN | zl81a08.r1 Stratagene colon (#937204) Homo sapiens cDNA clone IMAGE:510998 5' |
| 2321 | 15453 |  | 2.06 | 4.0E-03 | BE410556.1 | EST_HUMAN | 601304161F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638510 5' |
| 2352 | 15483 | 28615 | 1.53 | 4.0E-03 | AW794740.1 | EST_HUMAN | RC6-UM0014-170400-023-G01 UM0014 Homo sapiens cDNA |
| 2639 | 15762 | 28875 | 1.95 | 4.0E-03 | U52111.2 | NT | Homo sapiens X28 region near ALD locus containing dual specificity phosphatase 9 (DUSP9), ribosomal protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMKI), creatine transporter (CRTR), CDM protein (CDM), adrenoleukodystrophy protein > |
| 2639 | 15762 | 28876 | 1.95 | 4.0E-03 | U52111.2 | NT | Homo sapiens X28 region near ALD locus containing dual specificity phosphatase 9 (DUSP9), ribosomal protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMKI), creatine transporter (CRTR), CDM protein (CDM), adrenoleukodystrophy protein > |
| 2755 | 15872 | 28980 | 2.97 | 4.0E-03 | AJ277365.1 | NT | Homo sapiens polyglutamine-containing C14ORF4 gene |
| 2755 | 15872 | 28981 | 2.97 | 4.0E-03 | AJ277365.1 | NT | Homo sapiens polyglutamine-containing C14ORF4 gene |
| 2761 | 15877 | 28984 | 0.97 | 4.0E-03 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 3297 | 16471 | 29491 | 1.09 | 4.0E-03 | BE154134.1 | EST_HUMAN | PM1-HT0340-151299-003-h08 HT0340 Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3297 | 16471 | 29492 | 1.09 | 4.0E-03 | BE154134.1 | EST_HUMAN | PM1-HT0340-151299-003-h08 HT0340 Homo sapiens cDNA |
| 3619 | 16783 | 29798 | 0.83 | 4.0E-03 | AW188426.1 | EST_HUMAN | xj98f04.x1 NCI_CGAP_Co18 Homo sapiens cDNA clone IMAGE:2665279 3' |
| 3619 | 16783 | 29799 | 0.83 | 4.0E-03 | AW188426.1 | EST_HUMAN | xj98f04.x1 NCI_CGAP_Co18 Homo sapiens cDNA clone IMAGE:2665279 3' |
| 3714 | 16875 | 29880 | 0.64 | 4.0E-03 | Q13606 | SWISSPROT | OLFACTORY RECEPTOR 5I1 (OLFACTORY RECEPTOR-LIKE PROTEIN OLF1) |
| 4021 | 16875 | 29880 | 0.65 | 4.0E-03 | Q13606 | SWISSPROT | OLFACTORY RECEPTOR 5I1 (OLFACTORY RECEPTOR-LIKE PROTEIN OLF1) |
| 4040 | 17196 | 30207 | 0.72 | 4.0E-03 | AF060868.1 | NT | Mus musculus tumor susceptibility protein 101 (tsg101) gene, complete cds |
| 4102 | 17256 |  | 2.18 | 4.0E-03 | AJ011712.1 | NT | Homo sapiens TNNT1 gene, exons 1-11 (and joined CDS) |
| 5339 | 18452 | 31420 | 0.98 | 4.0E-03 | AW500547.1 | EST_HUMAN | UI-HF-BN0-akj-e-10-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077466 5' |
| 5390 | 18592 | 31564 | 1.58 | 4.0E-03 | AF005859.1 | NT | Drosophila melanogaster anon2D7 (anon2D7) mRNA, complete cds |
| 5516 | 18713 | 31726 | 27.24 | 4.0E-03 | AF169826.1 | NT | Rattus norvegicus beta-catenin binding protein mRNA, complete cds |
| 5914 | 19102 | 32416 | 3.1 | 4.0E-03 | P04196 | SWISSPROT | (HPRG) |
| 5918 | 19106 | 32418 | 1.8 | 4.0E-03 | P21849 | SWISSPROT | MAJOR SURFACE-LABELED TROPHOZOITE ANTIGEN PRECURSOR |
| 6003 | 19188 | 32507 | 0.8 | 4.0E-03 | AL133871.1 | EST_HUMAN | DKFZp761I1014_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761I1014 5' |
| 6209 | 19384 |  | 4.18 | 4.0E-03 | U22180.1 | NT | Rattus norvegicus opsin gene, complete cds |
| 6363 | 19533 | 32892 | 0.97 | 4.0E-03 | AW590572.1 | EST_HUMAN | hg48c07.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2948652 3' |
| 6439 | 19606 | 32969 | 1.78 | 4.0E-03 | BE548453.1 | EST_HUMAN | 601076015F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3461954 5' |
| 6809 | 19963 | 33367 | 1.07 | 4.0E-03 | AA813222.1 | EST_HUMAN | aj32f11.s1 Soares_testis_NHT Homo sapiens cDNA clone 1392045 3' |
| 6914 | 20229 | 33662 | 1.41 | 4.0E-03 | U76408.1 | NT | Lycopersicon esculentum knotted 3 protein (TKn3) mRNA, complete cds |
| 7217 | 20082 | 33495 | 1.12 | 4.0E-03 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 7217 | 20082 | 33496 | 1.12 | 4.0E-03 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 7348 | 20428 | 33889 | 3.73 | 4.0E-03 | Q02817 | SWISSPROT | MUCIN 2 PRECURSOR (INTESTINAL MUCIN 2) |
| 7589 | 20660 | 34136 | 0.96 | 4.0E-03 | AI681483.1 | EST_HUMAN | tx37g12.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2271814 3' |
| 7591 | 20662 | 34138 | 0.62 | 4.0E-03 | BE670170.1 | EST_HUMAN | 7e31b02.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284043 3' |
| 7693 | 20758 |  | 0.85 | 4.0E-03 | X92109.1 | NT | H.sapiens hcgIX gene |
| 8128 | 21210 | 34731 | 0.57 | 4.0E-03 | Q9TT92 | SWISSPROT | ADAM-TS 5 (A DISINTEGRIN AND METALLOPROTEINASE WITH THROMBOSPONDIN MOTIFS 5) (ADAMTS-5) (ADAM-TS5) (AGGRECANASE-2) (ADMP-2) (ADAM-TS 11) |
| 8238 | 21320 | 34838 | 4.61 | 4.0E-03 | AF111944.1 | NT | Dictyostelium discoideum AX4 development protein DG1122 (DG1122) gene, partial cds |
| 8398 | 21479 | 35006 | 2 | 4.0E-03 | 7662067 | NT | Homo sapiens KIAA0345 gene product (KIAA0345), mRNA |
| 8665 | 21745 | 35284 | 0.67 | 4.0E-03 | AF139827.1 | NT | *Plasmodium falciparum replication factor* C subunit 1 (rfc1) gene, complete cds |
| 8761 | 21840 | 35381 | 0.51 | 4.0E-03 | Y12855.1 | NT | Homo sapiens P2X7 gene, exon 12 and 13 |
| 8911 | 21990 | 35529 | 7.06 | 4.0E-03 | AI553983.1 | EST_HUMAN | te49b11.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2090013 3' similar to contains Alu repetitive element; |
| 9090 | 22169 |  | 3.24 | 4.0E-03 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 9100 | 22179 | 35723 | 3.76 | 4.0E-03 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |

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## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9825 | 22865 | 36447 | 0.47 | 4.0E-03 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 9825 | 22865 | 36448 | 0.47 | 4.0E-03 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 10131 | 23169 | 36766 | 0.63 | 4.0E-03 | H30664.1 | EST_HUMAN | yp42g12.r1 Soares retina N2b5HR Homo sapiens cDNA clone IMAGE:190150 5' |
| 10587 | 23622 | 37229 | 1.35 | 4.0E-03 | AL161555.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 55 |
| 11283 | 24349 | 37986 | 1.36 | 4.0E-03 | 4759101 | NT | Homo sapiens splicing factor, arginine/serine-rich 8 (suppressor-of-white-apricot, Drosophila homolog) (SFRS8) mRNA |
| 11394 | 24455 | 38117 | 5 | 4.0E-03 | AL163206.2 | NT | Homo sapiens chromosome 21 segment HS21C006 |
| 12072 | 25053 | 38762 | 1.57 | 4.0E-03 | AE002102.1 | NT | Ureaplasma urealyticum section 3 of 59 of the complete genome |
| 12434 | 26163 |  | 5.84 | 4.0E-03 | BE815173.1 | EST_HUMAN | PM4-BN0138-180600-002-b08 BN0138 Homo sapiens cDNA |
| 12457 | 25321 |  | 1.36 | 4.0E-03 | BE298290.1 | EST_HUMAN | 601118164F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3028095 5' |
| 12541 | 25367 |  | 1.95 | 4.0E-03 | AW504273.1 | EST_HUMAN | UI-HF-BN0-alp-g-04-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3080622 5' |
| 12814 | 25543 |  | 3.33 | 4.0E-03 | BF224125.1 | EST_HUMAN | 7q74c09.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE: 3' similar to contains Alu repetitive element;contains element MER31 repetitive element ; |
| 12858 | 26053 |  | 2.18 | 4.0E-03 | AW614596.1 | EST_HUMAN | hh02c07.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2953932 3' similar to contains element LTR5 repetitive element ; |
| 12871 | 25581 |  | 1.34 | 4.0E-03 | AW819141.1 | EST_HUMAN | RC3-ST0281-240400-015-f03 ST0281 Homo sapiens cDNA |
| 13202 | 25784 | 31918 | 1.23 | 4.0E-03 | 11436955 | NT | Homo sapiens Grb2-associated binder 2 (KIAA0571), mRNA |
| 382 | 13590 | 26626 | 1.25 | 3.0E-03 | AF011920.1 | NT | Homo sapiens protein kinase CK2 catalytic subunit alpha gene, exon 1 |
| 902 | 14077 | 27143 | 4.87 | 3.0E-03 | AF011920.1 | NT | Homo sapiens protein kinase CK2 catalytic subunit alpha gene, exon 1 |
| 1694 | 14846 | 27930 | 3.65 | 3.0E-03 | AA468110.1 | EST_HUMAN | nc73c05.s1 NCI_CGAP_Pr2 Homo sapiens cDNA clone IMAGE:782984 similar to contains Alu repetitive element; |
| 2367 | 15498 |  | 6.37 | 3.0E-03 | Z32521.1 | NT | S.cereale (cv. Halo) mRNA for triosephosphate isomerase |
| 2368 | 15499 | 28624 | 1.14 | 3.0E-03 | U46858.1 | NT | Mus musculus intestinal trefoil factor gene, partial cds |
| 2368 | 15499 | 28625 | 1.14 | 3.0E-03 | U46858.1 | NT | Mus musculus intestinal trefoil factor gene, partial cds |
| 3056 | 16232 |  | 0.77 | 3.0E-03 | Y09006.1 | NT | Arabidopsis thaliana rpoMt gene |
| 3152 | 16327 | 29338 | 3.55 | 3.0E-03 | BE379296.1 | EST_HUMAN | 601237982F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3609933 5' |
| 3220 | 16394 | 29405 | 2.53 | 3.0E-03 | AW802687.1 | EST_HUMAN | IL2-UM0076-240300-056-D03 UM0076 Homo sapiens cDNA |
| 3504 | 16671 | 29681 | 2.16 | 3.0E-03 | U34606.1 | NT | Mus musculus alpha-1(XVIII) collagen (COL18A1) gene, exon 1 and 2 |
| 3513 | 16679 |  | 7.5 | 3.0E-03 | Y12500.1 | NT | C.elegans samdc gene |
| 4086 | 17241 | 30248 | 7.76 | 3.0E-03 | AV762392.1 | EST_HUMAN | AV762392 MDS Homo sapiens cDNA clone MDSBSG01 5' |
| 4086 | 17241 | 30249 | 7.76 | 3.0E-03 | AV762392.1 | EST_HUMAN | AV762392 MDS Homo sapiens cDNA clone MDSBSG01 5' |
| 4147 | 17299 | 30291 | 1.67 | 3.0E-03 | AI792278.1 | EST_HUMAN | ah04f09.y5 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:1155689 5' |
| 4515 | 17654 | 30642 | 5.53 | 3.0E-03 | AJ011432.1 | NT | Rattus norvegicus gdnf gene |
| 4641 | 17777 | 30759 | 4.62 | 3.0E-03 | AI536141.1 | EST_HUMAN | xu8.P10.H3 conorm Homo sapiens cDNA 3' |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4858 | 17991 | 30978 | 0.69 | 3.0E-03 | AL119067.1 | EST_HUMAN | DKFZp761B0712_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761B0712 5' |
| 4955 | 18085 | 31061 | 2.05 | 3.0E-03 | AI732754.1 | EST_HUMAN | ab18a08.x5 Strategene lung (#937210) Homo sapiens cDNA clone IMAGE:841142 3' similar to contains Alu repetitive element; |
| 4978 | 18107 | 31083 | 5.53 | 3.0E-03 | BE787945.1 | EST_HUMAN | 601482715F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3885483 5' |
| 5255 | 18375 | 31341 | 0.9 | 3.0E-03 | 4506414 | NT | Homo sapiens RAP1, GTPase activating protein 1 (RAP1GA1) mRNA |
| 5255 | 18375 | 31342 | 0.9 | 3.0E-03 | 4506414 | NT | Homo sapiens RAP1, GTPase activating protein 1 (RAP1GA1) mRNA |
| 5262 | 18381 | 31347 | 1.75 | 3.0E-03 | AI193860.1 | EST_HUMAN | qe80b10.x1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:1745275 3' similar to SW:AP17_MOUSE Q00380 CLATHRIN COAT ASSEMBLY PROTEIN AP17 ;contains MSR1.t2 MER22 repetitive element ; |
| 5380 | 18582 | 31451 | 3.36 | 3.0E-03 | 8922499 | NT | Homo sapiens hypothetical protein FLJ10539 (FLJ10539), mRNA |
| 5673 | 18867 | 32153 | 1.09 | 3.0E-03 | AJ249981.1 | NT | Mus musculus mRNA for hypothetical protein (ORF2 ortholog) |
| 5744 | 18937 | 32237 | 0.83 | 3.0E-03 | U35323.1 | NT | Mus musculus H2-M alpha chain (H2-Ma) gene, H2-M beta 2 chain (H2-Mb2) gene, H2-M beta 1 chain (H2-Mb1) gene, low molecular weight protein 2 Lmp2 (Lmp2) gene, complete cds |
| 6683 | 19841 | 33231 | 9.72 | 3.0E-03 | AA456701.1 | EST_HUMAN | aa13f10.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:813163 5' |
| 7168 | 20301 | 33744 | 0.75 | 3.0E-03 | D37977.1 | NT | Fugu rubripes mRNA for sodium channel alpha subunit, partial cds |
| 7354 | 20433 | 33895 | 1.38 | 3.0E-03 | AJ011419.1 | NT | Kluyveromyces marxianus pcpl3 gene for purine-cytosine permease |
| 7691 | 20756 | 34241 | 3.71 | 3.0E-03 | AB021736.1 | NT | Oryza sativa gene for bZIP protein, complete cds |
| 8124 | 21206 | 34726 | 0.9 | 3.0E-03 | BF333058.1 | EST_HUMAN | RC0-BT0812-250900-032-e07 BT0812 Homo sapiens cDNA |
| 8124 | 21206 | 34727 | 0.9 | 3.0E-03 | BF333058.1 | EST_HUMAN | RC0-BT0812-250900-032-e07 BT0812 Homo sapiens cDNA |
| 8350 | 21431 | 34955 | 1.4 | 3.0E-03 | N92580.1 | EST_HUMAN | zb27b04.s1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:304783 3' |
| 8490 | 21571 | 35108 | 0.47 | 3.0E-03 | AI866028.1 | EST_HUMAN | wl24d09.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2425841 3' |
| 8510 | 21591 |  | 0.63 | 3.0E-03 | M63498.1 | NT | S.cerevisiae UGA35 gene, complete cds |
| 8665 | 21736 | 35276 | 1.34 | 3.0E-03 | P51989 | SWISSPROT | HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A2 HOMOLOG 1 (HNRNP A2(A)) |
| 8679 | 21759 | 35295 | 1.5 | 3.0E-03 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 8786 | 21865 |  | 1.45 | 3.0E-03 | Q9QM81 | SWISSPROT | NONSTRUCTURAL PROTEIN V |
| 9192 | 22270 |  | 10.8 | 3.0E-03 | AW613774.1 | EST_HUMAN | hh80f10.x1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2969131 3' similar to contains L1.t1 L1 repetitive element ; |
| 9245 | 22322 | 35866 | 4.26 | 3.0E-03 | AL161589.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 85 |
| 9269 | 22345 | 35896 | 9.96 | 3.0E-03 | AI016731.1 | EST_HUMAN | ov03d12.x1 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1636247 3' similar to gb:X57138_rna1 HISTONE H2B.2 (HUMAN); |
| 9280 | 22356 | 35906 | 0.53 | 3.0E-03 | BF338078.1 | EST_HUMAN | 602035980F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4183938 5' |
| 9609 | 22664 |  | 0.78 | 3.0E-03 | D90901.1 | NT | Synechocystis sp. PCC6803 complete genome, 3/27, 271600-402289 |
| 9646 | 21089 | 34604 | 0.77 | 3.0E-03 | BE154670.1 | EST_HUMAN | PM3-HT0344-071299-003-d07 HT0344 Homo sapiens cDNA |
| 9836 | 22876 |  | 0.56 | 3.0E-03 | P03355 | SWISSPROT | POL POLYPROTEIN [CONTAINS: PROTEASE ; REVERSE TRANSCRIPTASE ; RIBONUCLEASE H ] |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9908 | 22948 | | 6.51 | 3.0E-03 | P08672 | SWISSPROT | CIRCUMSPOROZOITE PROTEIN PRECURSOR (CS) |
| 10099 | 23137 | 36738 | 2.31 | 3.0E-03 | P11369 | SWISSPROT | RETROVIRUS-RELATED POL POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; ENDONUCLEASE] |
| 10200 | 23237 | 36827 | 1.44 | 3.0E-03 | P51989 | SWISSPROT | HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A2 HOMOLOG 1 (HNRNP A2(A)) |
| 10344 | 23379 | 36990 | 3.89 | 3.0E-03 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 11085 | 24159 | | 2.67 | 3.0E-03 | 5803028 | NT | Homo sapiens ATP/GTP-binding protein (HEAB), mRNA |
| 11458 | 20756 | 34241 | 1.45 | 3.0E-03 | AB021736.1 | NT | Oryza sativa gene for bZIP protein, complete cds |
| 11722 | 23908 | 37532 | 1.47 | 3.0E-03 | P22531 | SWISSPROT | SMALL PROLINE RICH PROTEIN II (SPR-II) (CLONE 930) |
| 11732 | 23918 | 37543 | 1.9 | 3.0E-03 | AF266285.1 | NT | Homo sapiens golgin-like protein (GLP) gene, complete cds |
| 11770 | 24762 | 38457 | 2.52 | 3.0E-03 | AF094481.1 | NT | Homo sapiens trinucleotide repeat DNA binding protein p20-CGGBP (CGGBP) gene, complete cds |
| 11770 | 24762 | 38458 | 2.52 | 3.0E-03 | AF094481.1 | NT | Homo sapiens trinucleotide repeat DNA binding protein p20-CGGBP (CGGBP) gene, complete cds |
| 11849 | 24838 | 38532 | 1.36 | 3.0E-03 | P11369 | SWISSPROT | RETROVIRUS-RELATED POL POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; ENDONUCLEASE] |
| 12077 | 25057 | | 1.46 | 3.0E-03 | AW294812.1 | EST_HUMAN | UI-H-BI2-ahi-d-06-0-UI.s1 NCI_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2726842 3' |
| 12199 | 25948 | | 1.62 | 3.0E-03 | AI625056.1 | EST_HUMAN | promrna-6.E07.r bvtumor Homo sapiens cDNA 5' |
| 12235 | 25179 | 38346 | 1.24 | 3.0E-03 | AA993154.1 | EST_HUMAN | ot77b10.s1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1622779 3' similar to contains L1.t3 MER26 repetitive element ; |
| 12296 | 26090 | | 1.76 | 3.0E-03 | AB009668.1 | NT | Homo sapiens gene for CMP-N-acetylneuraminic acid hydroxylase, partial cds |
| 12481 | 25333 | 32057 | 1.23 | 3.0E-03 | AJ296282.1 | NT | Rattus norvegicus mRNA for connexin36 (cx36 gene) |
| 528 | 13721 | 26746 | 0.87 | 2.0E-03 | Q04652 | SWISSPROT | RING CANAL PROTEIN (KELCH PROTEIN) |
| 528 | 13721 | 26747 | 0.87 | 2.0E-03 | Q04652 | SWISSPROT | RING CANAL PROTEIN (KELCH PROTEIN) |
| 808 | 16023 | | 11.88 | 2.0E-03 | T70874.1 | EST_HUMAN | yd15h03.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:108341 5' |
| 1394 | 14548 | 27624 | 2.08 | 2.0E-03 | M20783.1 | NT | Human alpha-2-plasmin inhibitor gene, exons 6 and 7 |
| 1397 | 14551 | 27626 | 1.42 | 2.0E-03 | AA661605.1 | EST_HUMAN | nu86f01.s1 NCI_CGAP_Alv1 Homo sapiens cDNA clone IMAGE:1217593 |
| 1406 | 14560 | 27634 | 20.85 | 2.0E-03 | AF284446.1 | NT | Homo sapiens tumor-related protein DRC2 (DRC2) gene, complete cds |
| 1519 | 14672 | 27754 | 1.1 | 2.0E-03 | P48509 | SWISSPROT | PLATELET-ENDOTHELIAL TETRASPAN ANTIGEN 3 (PETA-3) (GP27) (MEMBRANE GLYCOPROTEIN SFA-1) (CD151 ANTIGEN) |
| 1546 | 14698 | 27776 | 2.26 | 2.0E-03 | 4557836 | NT | Homo sapiens procollagen-lysine, 2-oxoglutarate 5-dioxygenase (lysine hydroxylase, Ehlers-Danlos syndrome type VI) (PLOD) mRNA |
| 1546 | 14698 | 27777 | 2.26 | 2.0E-03 | 4557836 | NT | Homo sapiens procollagen-lysine, 2-oxoglutarate 5-dioxygenase (lysine hydroxylase, Ehlers-Danlos syndrome type VI) (PLOD) mRNA |
| 1621 | 14773 | | 6.17 | 2.0E-03 | P29400 | SWISSPROT | COLLAGEN ALPHA 5(IV) CHAIN PRECURSOR |
| 1811 | 14960 | 28053 | 1.27 | 2.0E-03 | AA450138.1 | EST_HUMAN | zx42a10.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:789114 5' |
| 1928 | 15071 | | 1.09 | 2.0E-03 | BE144908.1 | EST_HUMAN | CM2-HT0183-061099-018-d03 HT0183 Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2051 | 15192 | 28305 | 1.59 | 2.0E-03 | AF302691.1 | NT | Mus musculus myelin expression factor-3-like protein gene, partial cds |
| 2324 | 16456 | 28588 | 0.97 | 2.0E-03 | AL163302.2 | NT | Homo sapiens chromosome 21 segment HS21C102 |
| 2647 | 15770 |  | 4.93 | 2.0E-03 | AW137782.1 | EST_HUMAN | UI-H-BI1-adl-g-10-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2717010 3' |
| 3503 | 16670 | 29680 | 4.92 | 2.0E-03 | AA450138.1 | EST_HUMAN | zx42a10.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:789114 5' |
| 3510 | 16676 | 29686 | 0.96 | 2.0E-03 | BF568955.1 | EST_HUMAN | 602183960T1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300070 3' |
| 3756 | 16917 | 29919 | 5.48 | 2.0E-03 | X87344.1 | NT | H.sapiens DMA, DMB, HLA-Z1, IPP2, LMP2, TAP1, LMP7, TAP2, DOB, DQB2 and RING8, 9, 13 and 14 genes |
| 4062 | 17218 | 30226 | 0.62 | 2.0E-03 | AB040802.1 | NT | Rattus norvegicus mRNA for SREB1, complete cds |
| 4229 | 17376 | 30364 | 2.39 | 2.0E-03 | P03374 | SWISSPROT | ENV POLYPROTEIN [CONTAINS: COAT PROTEIN GP52; COAT PROTEIN GP36] |
| 4290 | 17435 | 30423 | 1.02 | 2.0E-03 | AA179693.1 | EST_HUMAN | zp13h01.r1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:609361 5' |
| 4336 | 17479 |  | 13.93 | 2.0E-03 | U68491.1 | NT | Rattus norvegicus 5-hydroxytryptamine7 receptor gene, partial cds |
| 4632 | 17670 |  | 1.99 | 2.0E-03 | L35079.1 | NT | Porcine rotavirus major outer capsid protein (VP7) mRNA, complete cds |
| 4547 | 17685 |  | 1.22 | 2.0E-03 | AW297380.1 | EST_HUMAN | UI-H-BW0-air-g-03-0-UI.s1 NCI_CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2730413 3' |
| 4551 | 17689 | 30670 | 1.05 | 2.0E-03 | AI064746.1 | EST_HUMAN | HA0507 Human fetal liver cDNA library Homo sapiens cDNA |
| 4668 | 17803 | 30790 | 2.11 | 2.0E-03 | L42512.1 | NT | Drosophila melanogaster shortsighted class 2 (shs) mRNA, complete cds |
| 4668 | 17803 | 30791 | 2.11 | 2.0E-03 | L42512.1 | NT | Drosophila melanogaster shortsighted class 2 (shs) mRNA, complete cds |
| 4828 | 17961 | 30949 | 1.02 | 2.0E-03 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 4832 | 17965 |  | 1.57 | 2.0E-03 | R87773.1 | EST_HUMAN | yo45e02.s1 Soares adult brain N2b4HB55Y Homo sapiens cDNA clone IMAGE:180890 3' |
| 4962 | 18091 | 31067 | 1.07 | 2.0E-03 | P11000 | SWISSPROT | WALL-ASSOCIATED PROTEIN PRECURSOR |
| 5132 | 18257 | 31223 | 0.84 | 2.0E-03 | AF003528.1 | NT | Homo sapiens X-linked anhidroitic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 5604 | 18799 | 31849 | 1.57 | 2.0E-03 | BF241410.1 | EST_HUMAN | 601876385F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4104692 5' |
| 5745 | 25810 | 32238 | 1.83 | 2.0E-03 | AB014593.1 | NT | Homo sapiens mRNA for KIAA0693 protein, partial cds |
| 5828 | 19019 | 32325 | 2.08 | 2.0E-03 | U63711.1 | NT | Xenopus laevis xefiltin mRNA, complete cds |
| 6236 | 19411 | 32758 | 3.93 | 2.0E-03 | P23477 | SWISSPROT | ATP-DEPENDENT NUCLEASE SUBUNIT B |
| 6236 | 19411 | 32759 | 3.93 | 2.0E-03 | P23477 | SWISSPROT | ATP-DEPENDENT NUCLEASE SUBUNIT B |
| 6476 | 19643 | 33004 | 2.28 | 2.0E-03 | Q95203 | SWISSPROT | CARBONIC ANHYDRASE-RELATED PROTEIN 2 PRECURSOR (CARP 2) (CA-RP II) (CA-XI) |
| 6476 | 19643 | 33005 | 2.28 | 2.0E-03 | Q95203 | SWISSPROT | CARBONIC ANHYDRASE-RELATED PROTEIN 2 PRECURSOR (CARP 2) (CA-RP II) (CA-XI) |
| 6478 | 19645 | 33007 | 7.65 | 2.0E-03 | BF308187.1 | EST_HUMAN | 601887434F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4121408 5' |
| 6514 | 19679 | 33049 | 2.16 | 2.0E-03 | Q9UKP4 | SWISSPROT | ADAM-TS 7 PRECURSOR (A DISINTEGRIN AND METALLOPROTEINASE WITH THROMBOSPONDIN MOTIFS 7) (ADAMTS-7) (ADAM-TS7) |
| 6515 | 19680 | 33050 | 0.75 | 2.0E-03 | AV709075.1 | EST_HUMAN | AV709075 ADC Homo sapiens cDNA clone ADCAEF09 5' |
| 6544 | 19706 | 33082 | 1.45 | 2.0E-03 | X94451.1 | NT | L.esculentum mRNA for lysyl-tRNA synthetase (LysRS) |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6736 | 19892 | | 1.36 | 2.0E-03 | AI991089.1 | EST_HUMAN | wu36h09.x1 Soares_Dieckgraefe_colon_NHCD Homo sapiens cDNA clone IMAGE:2522177 3' similar to SW:RL29_HUMAN P47914 60S RIBOSOMAL PROTEIN L29 ;contains element MSR1 repetitive element ; |
| 6775 | 19930 | 33326 | 0.7 | 2.0E-03 | AA677831.1 | EST_HUMAN | zi13a11.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:430652 3' |
| 7098 | 18525 | 31517 | 1.35 | 2.0E-03 | AB038502.1 | NT | Caenorhabditis elegans mRNA for galectin LEC-11, complete cds |
| 7231 | 20136 | 33554 | 3.3 | 2.0E-03 | BE067986.1 | EST_HUMAN | CM4-BT0366-061299-054-d01 BT0366 Homo sapiens cDNA |
| 7294 | 20376 | 33833 | 0.65 | 2.0E-03 | AI298883.1 | EST_HUMAN | qm99d11.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1896885 3' |
| 7444 | 20521 | 33994 | 0.8 | 2.0E-03 | T86569.1 | EST_HUMAN | yd77g10.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:114306 5' |
| 7794 | 20850 | 34342 | 1.41 | 2.0E-03 | P07354 | SWISSPROT | PROTEOGLYCAN LINK PROTEIN PRECURSOR (CARTILAGE LINK PROTEIN) (LP) |
| 8241 | 21323 | 34840 | 2.97 | 2.0E-03 | AW592004.1 | EST_HUMAN | hf37b06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2934035 3' similar to TR:Q60976 Q60976 JERKY. ; |
| 8412 | 21493 | 35023 | 5.49 | 2.0E-03 | N20287.1 | EST_HUMAN | yx42g06.s1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:264442 3' similar to contains L1.b2 L1 repetitive element ; |
| 8412 | 21493 | 35024 | 5.49 | 2.0E-03 | N20287.1 | EST_HUMAN | yx42g06.s1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:264442 3' similar to contains L1.b2 L1 repetitive element ; |
| 8459 | 21540 | 35069 | 0.64 | 2.0E-03 | Q92350 | SWISSPROT | HYPOTHETICAL 32.8 KD PROTEIN C6G9.05 IN CHROMOSOME I |
| 8481 | 21562 | 35097 | 1.09 | 2.0E-03 | P19137 | SWISSPROT | LAMININ ALPHA-1 CHAIN PRECURSOR (LAMININ A CHAIN) |
| 8536 | 21617 | 35153 | 1.04 | 2.0E-03 | 6005855 | NT | Homo sapiens Retina-derived POU-domain factor-1 (RPF-1), mRNA |
| 8536 | 21617 | 35154 | 1.04 | 2.0E-03 | 6005855 | NT | Homo sapiens Retina-derived POU-domain factor-1 (RPF-1), mRNA |
| 8561 | 21642 | 35181 | 1.03 | 2.0E-03 | AU136679.1 | EST_HUMAN | AU136679 PLACE1 Homo sapiens cDNA clone PLACE1004839 5' |
| 8614 | 21694 | | 0.9 | 2.0E-03 | AJ400877.1 | NT | Homo sapiens ASCL3 gene, CEGP1 gene, C11orf14 gene, C11orf15 gene, C11orf16 gene and C11orf17 gene |
| 9396 | 19018 | 32323 | 0.79 | 2.0E-03 | AW796111.1 | EST_HUMAN | MR2-UM0025-300300-102-f02 UM0025 Homo sapiens cDNA |
| 9396 | 19018 | 32324 | 0.79 | 2.0E-03 | AW796111.1 | EST_HUMAN | MR2-UM0025-300300-102-f02 UM0025 Homo sapiens cDNA |
| 9441 | 22515 | 36079 | 1.07 | 2.0E-03 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 9726 | 22791 | 36362 | 0.71 | 2.0E-03 | H50832.1 | EST_HUMAN | yp86a09.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:194296 3' |
| 9726 | 22791 | 36363 | 0.71 | 2.0E-03 | H50832.1 | EST_HUMAN | yp86a09.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:194296 3' |
| 9758 | 22696 | 36264 | 3.33 | 2.0E-03 | P24821 | SWISSPROT | TENASCIN PRECURSOR (TN) (HEXABRACHION) (CYTOTACTIN) (NEURONECTIN) (GMEM) (JI) (MIOTENDINOUS ANTIGEN) (GLIOMA-ASSOCIATED-EXTRACELLULAR MATRIX ANTIGEN) (GP 150-225) (TENASCIN-C) (TN-C) |
| 9868 | 22908 | 36493 | 1.22 | 2.0E-03 | P48982 | SWISSPROT | BETA-GALACTOSIDASE PRECURSOR (LACTASE) |
| 9868 | 22908 | 36494 | 1.22 | 2.0E-03 | P48982 | SWISSPROT | BETA-GALACTOSIDASE PRECURSOR (LACTASE) |
| 9924 | 22964 | 36552 | 0.6 | 2.0E-03 | AF097732.1 | NT | Homo sapiens caspase recruitment domain-containing protein (BCL10) gene, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9924 | 22964 | 36553 | 0.6 | 2.0E-03 | AF097732.1 | NT | Homo sapiens caspase recruitment domain-containing protein (BCL10) gene, complete cds |
| 10119 | 23157 | 36755 | 0.96 | 2.0E-03 | AW884269.1 | EST_HUMAN | QV3-OT0064-060400-144-e01 OT0064 Homo sapiens cDNA |
| 10248 | 23283 | | 6.26 | 2.0E-03 | AA251376.1 | EST_HUMAN | zs10a06.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:684754 3' |
| 10628 | 23662 | 37270 | 0.49 | 2.0E-03 | BF367386.1 | EST_HUMAN | MR2-GN0030-140900-001-e05 GN0030 Homo sapiens cDNA |
| 11265 | 24334 | | 2.14 | 2.0E-03 | M86524.1 | NT | Human dystrophin gene |
| 11778 | 20850 | 34342 | 3.79 | 2.0E-03 | P07354 | SWISSPROT | PROTEOGLYCAN LINK PROTEIN PRECURSOR (CARTILAGE LINK PROTEIN) (LP) |
| 11836 | 24825 | | 2.36 | 2.0E-03 | BF330909.1 | EST_HUMAN | RC3-BT0333-310800-115-g04 BT0333 Homo sapiens cDNA |
| 11844 | 24833 | 38626 | 9.64 | 2.0E-03 | Z11740.1 | NT | H.sapiens variable number tandem repeat (VNTR) locus DNA |
| 12180 | 25140 | | 3.37 | 2.0E-03 | AI625745.1 | EST_HUMAN | ty65h03.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2283989 3' similar to SW:VATG_MANSE Q25532 VACUOLAR ATP SYNTHASE SUBUNIT G ; |
| 12198 | 25155 | 38833 | 4.31 | 2.0E-03 | AF157516.2 | NT | Homo sapiens SEL1L (SEL1L) gene, partial cds |
| 12222 | 25171 | 38836 | 1.71 | 2.0E-03 | AI084325.1 | EST_HUMAN | oy43g06.s1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1668634 3' similar to TR:P97535 P97535 PS-PLA1 PRECURSOR. ; |
| 12245 | 18497 | | 4.86 | 2.0E-03 | AJ245167.1 | NT | Camelus dromedarius cvhp19 gene for immunoglobulin heavy chain variable region |
| 12462 | 26140 | | 4 | 2.0E-03 | AV697966.1 | EST_HUMAN | AV697966 GKC Homo sapiens cDNA clone GKCGXD05 5' |
| 12561 | 26383 | 32039 | 1.29 | 2.0E-03 | Y00508.1 | NT | H. sapiens M1 gene for muscarinic acetylcholine receptor |
| 12897 | 25594 | | 1.38 | 2.0E-03 | AF129756.1 | NT | Homo sapiens MSH55 gene, partial cds; and CLIC1, DDAH, G6b, G6c, G5b, G6d, G6e, G6f, BAT5, G5b, CSK2B, BAT4, G4, Apo M, BAT3, BAT2, AIF-1, 1C7, LST-1, LTB, TNF, and LTA genes, complete cds |
| 13090 | 25927 | | 2.46 | 2.0E-03 | AV697966.1 | EST_HUMAN | AV697966 GKC Homo sapiens cDNA clone GKCGXD05 5' |
| 452 | 13648 | 26684 | 1.38 | 1.0E-03 | H96471.1 | EST_HUMAN | yt98c08.r1 Soares_pineal_gland_N3HPG Homo sapiens cDNA clone IMAGE:232334 5' |
| 852 | 14029 | 27091 | 1.55 | 1.0E-03 | AI720263.1 | EST_HUMAN | as70b08.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2334039 3' similar to TR:Q13825 Q13825 AU-BINDING PROTEIN/ENOYL-COA HYDRATASE. ; |
| 852 | 14029 | 27092 | 1.55 | 1.0E-03 | AI720263.1 | EST_HUMAN | as70b08.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2334039 3' similar to TR:Q13825 Q13825 AU-BINDING PROTEIN/ENOYL-COA HYDRATASE. ; |
| 1119 | 14284 | 27339 | 2.61 | 1.0E-03 | AI865788.1 | EST_HUMAN | wk86a06.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2422258 3' |
| 1139 | 14304 | 27360 | 1.61 | 1.0E-03 | AI954572.1 | EST_HUMAN | wx93e10.x1 NCI_CGAP_Mel15 Homo sapiens cDNA clone IMAGE:2551242 3' |
| 1192 | 14354 | 27412 | 0.85 | 1.0E-03 | AI692616.1 | EST_HUMAN | wd86a01.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2338440 3' similar to contains Alu repetitive element; |
| 2084 | 15224 | 28346 | 3.42 | 1.0E-03 | P47808 | SWISSPROT | HIGH MOLECULAR WEIGHT FORM OF MYOSIN I (HMWMI) |
| 2222 | 15356 | 28486 | 9.62 | 1.0E-03 | AJ131016.1 | NT | Homo sapiens SCL gene locus |
| 3044 | 16220 | 29241 | 1.37 | 1.0E-03 | AB033117.1 | NT | Homo sapiens mRNA for KIAA1291 protein, partial cds |
| 3260 | 16434 | 29451 | 2.81 | 1.0E-03 | P18915 | SWISSPROT | CARBONIC ANHYDRASE VI PRECURSOR (CARBONATE DEHYDRATASE VI) (CA-VI) (SECRETED CARBONIC ANHYDRASE) (SALIVARY CARBONIC ANHYDRASE) |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3260 | 16434 | 29452 | 2.81 | 1.0E-03 | P18915 | SWISSPROT | CARBONIC ANHYDRASE VI PRECURSOR (CARBONATE DEHYDRATASE VI) (CA-VI) (SECRETED CARBONIC ANHYDRASE) (SALIVARY CARBONIC ANHYDRASE) |
| 3374 | 16546 | 29560 | 0.75 | 1.0E-03 | P08547 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 3632 | 16796 | 29813 | 0.94 | 1.0E-03 | U68061.1 | NT | Human MUC2 gene, promoter region |
| 3632 | 16796 | 29814 | 0.94 | 1.0E-03 | U68061.1 | NT | Human MUC2 gene, promoter region |
| 3755 | 16916 |  | 1.43 | 1.0E-03 | AB044400.1 | NT | Homo sapiens SVMT gene for synaptic vesicle monoamine transporter, exons 14, 15 |
| 4034 | 17190 | 30200 | 0.98 | 1.0E-03 | AW170552.1 | EST_HUMAN | xn63d07.x1 Soares_NHCeC_cervical_tumor Homo sapiens cDNA clone IMAGE:2698381 3' similar to contains TAR1.t1 TAR1 repetitive element ; |
| 4044 | 17200 | 30211 | 0.91 | 1.0E-03 | Z49649.1 | NT | S.cerevisiae chromosome X reading frame ORF YJR149w |
| 4556 | 17694 | 30673 | 2.34 | 1.0E-03 | BE939162.1 | EST_HUMAN | RC1-TN0128-160800-021-g01 TN0128 Homo sapiens cDNA |
| 4598 | 17735 | 30715 | 4.89 | 1.0E-03 | BE246536.1 | EST_HUMAN | TCBAP1D4909 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP4909 |
| 4785 | 17920 | 30908 | 0.81 | 1.0E-03 | U29449.1 | NT | Caenorhabditis elegans spliced leader RNA (SL3 alpha), (SL4), and (SL5) genes |
| 4945 | 18075 | 31060 | 2.54 | 1.0E-03 | AI073485.1 | EST_HUMAN | ov45c04.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1640262 3' |
| 4945 | 18075 | 31061 | 2.54 | 1.0E-03 | AI073485.1 | EST_HUMAN | ov45c04.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1640262 3' |
| 4946 | 18076 |  | 6 | 1.0E-03 | BE154067.1 | EST_HUMAN | PM0-HT0339-200400-010-D02 HT0339 Homo sapiens cDNA |
| 5188 | 18310 | 31276 | 15.5 | 1.0E-03 | O46409 | SWISSPROT | APOLIPOPROTEIN A-IV PRECURSOR (APO-AIV) |
| 5324 | 18437 | 31407 | 4.73 | 1.0E-03 | BE219340.1 | EST_HUMAN | hv51f02.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3176955 3' |
| 5423 | 18624 | 31600 | 2 | 1.0E-03 | AA290951.1 | EST_HUMAN | zs44f01.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:700345 5' |
| 5518 | 18716 | 31730 | 3.57 | 1.0E-03 | AJ006345.1 | NT | Homo sapiens KVLQT1 gene |
| 5572 | 18768 | 31809 | 1.64 | 1.0E-03 | K03332.1 | NT | Epstein-Barr virus (AG876 isolate) U2-IR2 domain encoding nuclear protein EBNA2, complete cds |
| 5572 | 18768 | 31810 | 1.64 | 1.0E-03 | K03332.1 | NT | Epstein-Barr virus (AG876 isolate) U2-IR2 domain encoding nuclear protein EBNA2, complete cds |
| 5690 | 18884 | 32176 | 0.95 | 1.0E-03 | BE796491.1 | EST_HUMAN | 601589841F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943954 5' |
| 5696 | 18890 | 32181 | 1.77 | 1.0E-03 | Q02388 | SWISSPROT | COLLAGEN ALPHA 1(VII) CHAIN PRECURSOR (LONG-CHAIN COLLAGEN) (LC COLLAGEN) |
| 5751 | 18943 | 32244 | 0.8 | 1.0E-03 | N41974.1 | EST_HUMAN | yy07h06.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:270587 5' similar to contains element MER6 repetitive element ; |
| 5751 | 18943 | 32245 | 0.8 | 1.0E-03 | N41974.1 | EST_HUMAN | yy07h06.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:270587 5' similar to contains element MER6 repetitive element ; |
| 6033 | 19216 |  | 0.59 | 1.0E-03 | BF541639.1 | EST_HUMAN | 602068042F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4066907 5' |
| 6144 | 19322 |  | 2.75 | 1.0E-03 | X07699.1 | NT | Mouse nucleolin gene |
| 6184 | 19360 | 32708 | 0.85 | 1.0E-03 | BE963939.2 | EST_HUMAN | 601657519R1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3875693 3' |
| 6321 | 19493 |  | 8.77 | 1.0E-03 | 11526176 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1), mRNA |
| 6464 | 19631 | 32992 | 1.11 | 1.0E-03 | T87761.1 | EST_HUMAN | yd93a11.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:115772 5' |
| 6539 | 19702 |  | 1.68 | 1.0E-03 | AW902585.1 | EST_HUMAN | QV3-NN1024-260400-171-g05 NN1024 Homo sapiens cDNA |

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## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6895 | 20046 | 33455 | 1.41 | 1.0E-03 | L77570.1 | NT | Homo sapiens DiGeorge syndrome critical region, centromeric end |
| 7302 | 20384 | 33843 | 2.81 | 1.0E-03 | D16826.1 | NT | Human gene for fourth somatostatin receptor subtype |
| 7656 | 20724 |  | 1.12 | 1.0E-03 | AJ229042.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22, segment 2/3 |
| 7817 | 20872 | 34370 | 1.98 | 1.0E-03 | U52111.2 | NT | Homo sapiens X28 region near ALD locus containing dual specificity phosphatase 9 (DUSP9), ribosomal protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMKI), creatine transporter (CRTR), CDM protein (CDM), adrenoleukodystrophy protein > |
| 7885 | 20937 | 34443 | 3.44 | 1.0E-03 | M63376.1 | NT | Human TRPM-2 protein gene, exons 1,2 and 3 |
| 7934 | 20984 | 34492 | 0.79 | 1.0E-03 | BE880044.1 | EST_HUMAN | 601491081F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3893276 5' |
| 8073 | 21155 | 34674 | 0.66 | 1.0E-03 | AF274581.1 | NT | Homo sapiens prolactin-releasing peptide receptor gene, 5' flanking region |
| 8136 | 21218 | 34739 | 5.02 | 1.0E-03 | AJ251973.1 | NT | Homo sapiens partial steerin-1 gene |
| 8337 | 21418 | 34944 | 1.95 | 1.0E-03 | AA122270.1 | EST_HUMAN | zk97c09.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:490768 3' similar to contains L1.t1 L1 repetitive element ; |
| 8438 | 21519 | 35048 | 2.36 | 1.0E-03 | AF153980.1 | NT | Homo sapiens exostoses-like protein 1 (EXTL1) gene, exons 2 through 11, and complete cds |
| 8625 | 21705 | 35241 | 0.75 | 1.0E-03 | U29397.1 | NT | Rattus norvegicus plasma membrane Ca2+ ATPase isoform 3 (PMCA3) gene, 5' flanking region |
| 9144 | 22223 |  | 1.48 | 1.0E-03 | Y11204.1 | NT | V.carteri gene encoding volvoxopsin |
| 9170 | 22248 | 35791 | 0.65 | 1.0E-03 | AW840353.1 | EST_HUMAN | CM3-LT0079-170200-092-e07 LT0079 Homo sapiens cDNA |
| 9281 | 22357 |  | 0.65 | 1.0E-03 | U52111.2 | NT | Homo sapiens X28 region near ALD locus containing dual specificity phosphatase 9 (DUSP9), ribosomal protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMKI), creatine transporter (CRTR), CDM protein (CDM), adrenoleukodystrophy protein > |
| 9319 | 22395 | 35947 | 3.89 | 1.0E-03 | M30471.1 | NT | Human class III alcohol dehydrogenase (ADH5) chi subunit mRNA, complete cds |
| 9319 | 22395 | 35948 | 3.89 | 1.0E-03 | M30471.1 | NT | Human class III alcohol dehydrogenase (ADH5) chi subunit mRNA, complete cds |
| 9796 | 22836 |  | 0.47 | 1.0E-03 | AI247482.1 | EST_HUMAN | qh56d01.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1848673 3' similar to gb:M97388 TATA-BINDING PROTEIN-ASSOCIATED PHOSPHOPROTEIN (HUMAN); |
| 9807 | 22847 | 36424 | 2.06 | 1.0E-03 | AF011400.1 | NT | Thermotoga neapolitana alpha-1,6-galactosidase (aglA) gene, complete cds |
| 9807 | 22847 | 36425 | 2.06 | 1.0E-03 | AF011400.1 | NT | Thermotoga neapolitana alpha-1,6-galactosidase (aglA) gene, complete cds |
| 10025 | 23063 | 36660 | 0.88 | 1.0E-03 | Q01129 | SWISSPROT | BONE PROTEOGLYCAN II PRECURSOR (PG-S2) (DECORIN) (PG40) (DERMATAN SULFATE PROTEOGLYCAN-II) (DSPG) |
| 10366 | 23401 | 37012 | 9.37 | 1.0E-03 | AF003529.1 | NT | Homo sapiens glypican 3 (GPC3) gene, partial cds and flanking repeat regions |
| 10372 | 23407 |  | 0.75 | 1.0E-03 | AF097485.1 | NT | Homo sapiens transducin beta-like 2 (TBL2) gene, complete cds |
| 10522 | 23557 | 37165 | 1.08 | 1.0E-03 | AI024350.1 | EST_HUMAN | ov75f08.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1643175 3' similar to contains MER39.b1 MER39 MER39 repetitive element ; |
| 10823 | 23856 | 37478 | 0.5 | 1.0E-03 | AE004762.1 | NT | Pseudomonas aeruginosa.PA01, section 323 of 529 of the complete genome |
| 10823 | 23856 | 37479 | 0.5 | 1.0E-03 | AE004762.1 | NT | Pseudomonas aeruginosa PA01, section 323 of 529 of the complete genome |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10830 | 23863 | | 0.53 | 1.0E-03 | AA706202.1 | EST_HUMAN | ag93f12.s1 Stratagene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:1142063 3' similar to contains Alu repetitive element; |
| 10902 | 23986 | 37617 | 2.01 | 1.0E-03 | AW362393.1 | EST_HUMAN | RC1-CT0279-181099-011-a09 CT0279 Homo sapiens cDNA |
| 10902 | 23986 | 37618 | 2.01 | 1.0E-03 | AW362393.1 | EST_HUMAN | RC1-CT0279-181099-011-a09 CT0279 Homo sapiens cDNA |
| 10989 | 24068 | 37702 | 2.46 | 1.0E-03 | BE170859.1 | EST_HUMAN | QV3-HT0543-220300-130-a03 HT0543 Homo sapiens cDNA |
| 11062 | 24138 | | 2.03 | 1.0E-03 | AI583847.1 | EST_HUMAN | tt73e12.x1 NCI_CGAP_HSC3 Homo sapiens cDNA clone IMAGE:2246446 3' similar to TR:Q26195 Q26195 PVA1 GENE. ; |
| 11425 | 24486 | | 2.63 | 1.0E-03 | AV759949.1 | EST_HUMAN | AV759949 MDS Homo sapiens cDNA clone MDSDDF11 5' |
| 11858 | 24846 | 38543 | 2.17 | 1.0E-03 | P23468 | SWISSPROT | PROTEIN-TYROSINE PHOSPHATASE DELTA PRECURSOR (R-PTP-DELTA) |
| 11858 | 24846 | 38544 | 2.17 | 1.0E-03 | P23468 | SWISSPROT | PROTEIN-TYROSINE PHOSPHATASE DELTA PRECURSOR (R-PTP-DELTA) |
| 11924 | 24910 | 38611 | 1.53 | 1.0E-03 | P13002 | SWISSPROT | PROTEIN GRAINY-HEAD (DNA-BINDING PROTEIN ELF-1) (ELEMENT I-BINDING ACTIVITY) (TRANSCRIPTION FACTOR NTF-1) |
| 11924 | 24910 | 38612 | 1.53 | 1.0E-03 | P13002 | SWISSPROT | PROTEIN GRAINY-HEAD (DNA-BINDING PROTEIN ELF-1) (ELEMENT I-BINDING ACTIVITY) (TRANSCRIPTION FACTOR NTF-1) |
| 12175 | 25136 | 38831 | 5.51 | 1.0E-03 | BE894488.1 | EST_HUMAN | 601433087F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918524 5' |
| 12679 | 26118 | | 7.37 | 1.0E-03 | AI347355.1 | EST_HUMAN | tc05h11.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:2063013 3' similar to contains Alu repetitive element; |
| 12812 | 26142 | 31551 | 3.83 | 1.0E-03 | BE780572.1 | EST_HUMAN | 601468878F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3872035 5' |
| 12889 | 25690 | | 1.17 | 1.0E-03 | 11465934 | NT | Nicotiana tabacum chloroplast, complete genome |
| 5327 | 18440 | 31409 | 0.7 | 9.0E-04 | P08548 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 5799 | 18989 | | 2.08 | 9.0E-04 | P06727 | SWISSPROT | APOLIPOPROTEIN A-IV PRECURSOR (APO-AIV) |
| 6388 | 19557 | | 0.58 | 9.0E-04 | AJ006345.1 | NT | Homo sapiens KVLQT1 gene |
| 6615 | 19775 | 33166 | 1.27 | 9.0E-04 | P02381 | SWISSPROT | MITOCHONDRIAL RIBOSOMAL PROTEIN VAR1 |
| 9843 | 22883 | | 1.46 | 9.0E-04 | AB037203.1 | NT | Glycyrrhiza glabra GgbAS1 mRNA for beta-amyrin synthase, complete cds |
| 1517 | 14670 | | 1.07 | 8.0E-04 | X98469.1 | NT | X.laevis mRNA for C4SR protein |
| 4296 | 17439 | | 4.4 | 8.0E-04 | P08547 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 4887 | 18017 | 31002 | 2.5 | 8.0E-04 | U29185.1 | NT | Homo sapiens prion protein (PrP) gene, complete cds |
| 11412 | 24473 | | 2.59 | 8.0E-04 | AA777084.1 | EST_HUMAN | zf24c10.s1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:377874 3' |
| 11576 | 24631 | | 1.87 | 8.0E-04 | AI571099.1 | EST_HUMAN | tn85a08.x1 NCI_CGAP_Ut2 Homo sapiens cDNA clone IMAGE:2176310 3' |
| 1874 | 15018 | 28127 | 1.11 | 7.0E-04 | L41825.1 | NT | Homo sapiens CYP17 gene, 5' end |
| 2472 | 15599 | 28724 | 1.46 | 7.0E-04 | U29185.1 | NT | Homo sapiens prion protein (PrP) gene, complete cds |
| 2778 | 15894 | 29004 | 1.33 | 7.0E-04 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 3363 | 16526 | 29540 | 1.4 | 7.0E-04 | 4885170 | NT | Homo sapiens chromosome X open reading frame 6 (CXORF6) mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6221 | 19396 | 32745 | 0.93 | 7.0E-04 | AA516212.1 | EST_HUMAN | ng65g12.s1 NCI_CGAP_Lip2 Homo sapiens cDNA clone IMAGE:939718 similar to contains L1.b3 L1 L1 repetitive element ; |
| 6642 | 19801 |  | 2.33 | 7.0E-04 | AI769331.1 | EST_HUMAN | wg36f09.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2367209 3' |
| 7376 | 20455 |  | 0.72 | 7.0E-04 | AK024445.1 | NT | Homo sapiens mRNA for FLJ00035 protein, partial cds |
| 10008 | 23046 | 36639 | 0.65 | 7.0E-04 | P13497 | SWISSPROT | BONE MORPHOGENETIC PROTEIN 1 PRECURSOR (BMP-1) |
| 10008 | 23046 | 36640 | 0.65 | 7.0E-04 | P13497 | SWISSPROT | BONE MORPHOGENETIC PROTEIN 1 PRECURSOR (BMP-1) |
| 11865 | 24853 |  | 1.7 | 7.0E-04 | U78027.1 | NT | Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds |
| 11893 | 24881 | 38578 | 3.76 | 7.0E-04 | Z40561.1 | EST_HUMAN | HSC28A072 normalized infant brain cDNA Homo sapiens cDNA clone c-28a07 3' |
| 12723 | 25481 |  | 9.28 | 7.0E-04 | BE077941.1 | EST_HUMAN | CM1-BT0614-110300-142-b12 BT0614 Homo sapiens cDNA |
| 13001 | 25650 |  | 2.66 | 7.0E-04 | R17336.1 | EST_HUMAN | yg13c06.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:32298 5' |
| 13038 | 25682 |  | 5.43 | 7.0E-04 | 6005855 | NT | Homo sapiens Retina-derived POU-domain factor-1 (RPF-1), mRNA |
| 2760 | 15876 |  | 0.97 | 6.0E-04 | BF341380.1 | EST_HUMAN | 602013339F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4149297 5' |
| 4069 | 17225 | 30232 | 1.64 | 6.0E-04 | AI862525.1 | EST_HUMAN | wj15a11.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2402876 3' |
| 4201 | 17350 | 30341 | 0.65 | 6.0E-04 | K01315.1 | NT | Homo sapiens epsilon-1 pseudogene (IGHEP1) gene, 5' flanking region |
| 4201 | 17350 | 30342 | 0.65 | 6.0E-04 | K01315.1 | NT | Homo sapiens epsilon-1 pseudogene (IGHEP1) gene, 5' flanking region |
| 4301 | 17444 | 30430 | 3.91 | 6.0E-04 | U45983.1 | NT | Homo sapiens CCR8 chemokine receptor (CMKBR8) gene, complete cds |
| 4665 | 17703 | 30683 | 0.89 | 6.0E-04 | BE173435.1 | EST_HUMAN | RC2-HT0560-190200-011-f09 HT0560 Homo sapiens cDNA |
| 4665 | 17703 | 30684 | 0.89 | 6.0E-04 | BE173435.1 | EST_HUMAN | RC2-HT0560-190200-011-f09 HT0560 Homo sapiens cDNA |
| 8050 | 21133 |  | 4.58 | 6.0E-04 | P46408 | SWISSPROT | GLUCOSE TRANSPORTER TYPE 5, SMALL INTESTINE (FRUCTOSE TRANSPORTER) |
| 8205 | 21287 |  | 0.51 | 6.0E-04 | H92947.1 | EST_HUMAN | yt94c11.s1 Soares_pineal_gland_N3HPG Homo sapiens cDNA clone IMAGE:231956 3' similar to contains LOR1 repetitive element ; |
| 10185 | 23222 |  | 3.26 | 6.0E-04 | AL048507.2 | EST_HUMAN | DKFZp586M2024_r1 586 (synonym: hute1) Homo sapiens cDNA clone DKFZp586M2024 |
| 10215 | 23251 |  | 0.53 | 6.0E-04 | AI858286.1 | EST_HUMAN | wl35g02.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2426930 3' |
| 10285 | 23320 | 36922 | 2.29 | 6.0E-04 | BE005850.1 | EST_HUMAN | RC2-BN0120-250400-012-h11 BN0120 Homo sapiens cDNA |
| 10547 | 23582 |  | 0.84 | 6.0E-04 | AF287478.1 | NT | Lytechinus variegatus embryonic blastocoelar extracellular matrix protein precursor (ECM3) mRNA, complete cds |
| 11774 | 24766 | 38462 | 2.07 | 6.0E-04 | AJ229042.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22, segment 2/3 |
| 11866 | 24854 | 38549 | 2.47 | 6.0E-04 | AW013847.1 | EST_HUMAN | UI-H-BI0-aab-e-09-0-UI.s1 NCI_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2708825 3' |
| 11937 | 24923 |  | 1.62 | 6.0E-04 | Q01768 | SWISSPROT | NUCLEOSIDE DIPHOSPHATE KINASE B (NDK B) (NDP KINASE B) (NM23-M2) (P18) |
| 12363 | 26007 |  | 3.31 | 6.0E-04 | AW380519.1 | EST_HUMAN | RC1-HT0269-261199-012-d08 HT0269 Homo sapiens cDNA |
| 13226 | 25797 |  | 14.14 | 6.0E-04 | AI817088.1 | EST_HUMAN | wj76g11.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2408804 3' similar to contains element L1 repetitive element ; |
| 668 | 13854 | 26882 | 7.88 | 5.0E-04 | O10341 | SWISSPROT | HYPOTHETICAL 29.3 KD PROTEIN (ORF92) |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1531 | 14684 | | 2.03 | 5.0E-04 | AW851844.1 | EST_HUMAN | QV0-CT0225-021099-030-a07 CT0225 Homo sapiens cDNA |
| 3500 | 16667 | 29677 | 1.6 | 5.0E-04 | AA548931.1 | EST_HUMAN | nk27e11.s1 NCI_CGAP_Co11 Homo sapiens cDNA clone IMAGE:1014764 3' similar to contains Alu repetitive element; |
| 3809 | 16969 | 29972 | 0.94 | 5.0E-04 | Q9UKP4 | SWISSPROT | ADAM-TS 7 PRECURSOR (A DISINTEGRIN AND METALLOPROTEINASE WITH THROMBOSPONDIN MOTIFS 7) (ADAMTS-7) (ADAM-TS7) |
| 5589 | 18784 | 31830 | 2.51 | 5.0E-04 | AF248054.1 | NT | Bos taurus micromolar calcium activated neutral protease 1 (CAPN1) gene, exons 11-20, and partial cds |
| 6765 | 19921 | 33317 | 7.06 | 5.0E-04 | AA156080.1 | EST_HUMAN | zo33b08.r1 Stratagene colon (#937204) Homo sapiens cDNA clone IMAGE:588663 5' |
| 7534 | 20607 | 34082 | 9.01 | 5.0E-04 | M23604.1 | NT | Gorilla gorilla involucrin gene medium allele, complete cds |
| 8143 | 21225 | 34745 | 5.58 | 5.0E-04 | AI188382.1 | EST_HUMAN | qd13f06.x1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:1723619 3' similar to gb:X51602_cds1 VASCULAR ENDOTHELIAL GROWTH FACTOR RECEPTOR 1 (HUMAN);contains Alu repetitive element; |
| 8498 | 21579 | 35115 | 0.95 | 5.0E-04 | AA814519.1 | EST_HUMAN | ob96e02.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1339226 3' similar to contains element MER22 repetitive element ; |
| 9477 | 22534 | 36098 | 1.67 | 5.0E-04 | AA846545.1 | EST_HUMAN | aj56h03.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1394357 3' |
| 9571 | 22713 | 36281 | 0.58 | 5.0E-04 | N83765.1 | EST_HUMAN | KK2745F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone KK2745 5' similar to REPETITIVE ELEMENT |
| 9718 | 22783 | 36354 | 0.64 | 6.0E-04 | P29126 | SWISSPROT | BIFUNCTIONAL ENDO-1,4-BETA-XYLANASE XYLA PRECURSOR |
| 9809 | 22849 | 36428 | 4.78 | 5.0E-04 | AW270938.1 | EST_HUMAN | xs06e02.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2768858 3' |
| 10484 | 23519 | | 0.6 | 5.0E-04 | U50871.1 | NT | Human familial Alzheimer's disease (STM2) gene, complete cds |
| 11220 | 24289 | | 1.9 | 6.0E-04 | AL048607.2 | EST_HUMAN | DKFZp586M2024_r1 586 (synonym: hute1) Homo sapiens cDNA clone DKFZp586M2024 |
| 12012 | 18784 | 31830 | 15 | 5.0E-04 | AF248054.1 | NT | Bos taurus micromolar calcium activated neutral protease 1 (CAPN1) gene, exons 11-20, and partial cds |
| 12301 | 25936 | | 2.39 | 5.0E-04 | AA568513.1 | EST_HUMAN | nf15h02.s1 NCI_CGAP_Pr1 Homo sapiens cDNA clone IMAGE:913875 |
| 12872 | 25961 | | 1.33 | 5.0E-04 | U63834.1 | NT | Human KIT protein and alternatively spliced KIT protein (KIT) gene, complete cds |
| 403 | 13600 | | 0.75 | 4.0E-04 | BF241482.1 | EST_HUMAN | 601876534F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4104897 5' |
| 690 | 13874 | 26907 | 1.36 | 4.0E-04 | U32748.1 | NT | Haemophilus influenzae Rd section 63 of 163 of the complete genome |
| 870 | 14046 | 27111 | 1.55 | 4.0E-04 | AI720263.1 | EST_HUMAN | as70b08.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2334039 3' similar to TR:Q13825 Q13825 AU-BINDING PROTEIN/ENOYL-COA HYDRATASE. ; |
| 870 | 14046 | 27112 | 1.55 | 4.0E-04 | AI720263.1 | EST_HUMAN | as70b08.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2334039 3' similar to TR:Q13825 Q13825 AU-BINDING PROTEIN/ENOYL-COA HYDRATASE. ; |
| 1493 | 14646 | 27728 | 5.58 | 4.0E-04 | AW753356.1 | EST_HUMAN | RC3-CT0254-130100-023-f01 CT0254 Homo sapiens cDNA |
| 2148 | 15284 | 28410 | 1.87 | 4.0E-04 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 2202 | 15337 | | 1.1 | 4.0E-04 | AL046704.1 | EST_HUMAN | DKFZp434D059_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434D059 5' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2691 | 15811 | 28927 | 2.04 | 4.0E-04 | O96615 | SWISSPROT | SERICIN-2 (SILK GUM PROTEIN 2) |
| 3233 | 16407 | 29420 | 2.78 | 4.0E-04 | AF281074.1 | NT | Homo sapiens neuropilin 2 (NRP2) gene, complete cds, alternatively spliced |
| 3397 | 16567 | 29583 | 0.69 | 4.0E-04 | AI720263.1 | EST_HUMAN | as70b08.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2334039 3' similar to TR:Q13825 Q13825 AU-BINDING PROTEIN/ENOYL-COA HYDRATASE. ; |
| 3443 | 16611 | 29629 | 0.6 | 4.0E-04 | AV696624.1 | EST_HUMAN | AV696624 GKC Homo sapiens cDNA clone GKCFFH07 5' |
| 4443 | 17583 | 30561 | 3.24 | 4.0E-04 | AA576331.1 | EST_HUMAN | nh10a10.s1 NCI_CGAP_Co1 Homo sapiens cDNA clone IMAGE:951930 3' similar to gb:M21121 T-CELL SPECIFIC RANTES PROTEIN PRECURSOR (HUMAN); |
| 4443 | 17583 | 30562 | 3.24 | 4.0E-04 | AA576331.1 | EST_HUMAN | nh10a10.s1 NCI_CGAP_Co1 Homo sapiens cDNA clone IMAGE:951930 3' similar to gb:M21121 T-CELL SPECIFIC RANTES PROTEIN PRECURSOR (HUMAN); |
| 4669 | 17795 | 30781 | 2.33 | 4.0E-04 | AA086324.1 | EST_HUMAN | zn61c08.s1 Stratagene muscle 937209 Homo sapiens cDNA clone IMAGE:562670 3' |
| 5199 | 18320 | 31289 | 3.62 | 4.0E-04 | BE560660.1 | EST_HUMAN | 601345895F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3678910 5' |
| 7418 | 20496 | 33965 | 1.55 | 4.0E-04 | P48442 | SWISSPROT | EXTRACELLULAR CALCIUM-SENSING RECEPTOR PRECURSOR (CASR) (PARATHYROID CELL CALCIUM-SENSING RECEPTOR) |
| 7705 | 20770 |  | 0.85 | 4.0E-04 | AL161566.2 | NT | Arabidopsis thaliana DNA chromosome 4, contig fragment No. 66 |
| 7896 | 20948 | 34456 | 0.8 | 4.0E-04 | AU122079.1 | EST_HUMAN | AU122079 MAMMA1 Homo sapiens cDNA clone MAMMA1001620 5' |
| 8733 | 21813 | 35348 | 3.64 | 4.0E-04 | BF240712.1 | EST_HUMAN | 601876985F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4099700 5' |
| 8741 | 21820 | 35354 | 1.68 | 4.0E-04 | N25507.1 | EST_HUMAN | yx39e12.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:264142 5' |
| 9892 | 22932 | 36515 | 3.37 | 4.0E-04 | AI025699.1 | EST_HUMAN | ov87h03.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1644341 3' |
| 10045 | 23083 |  | 1.12 | 4.0E-04 | AF022855.1 | NT | Mus musculus neuropilin-2(a17) mRNA, alternatively spliced, complete cds |
| 12691 | 25908 |  | 1.56 | 4.0E-04 | AF254822.1 | NT | Homo sapiens SMARCA4 isoform (SMARCA4) gene, complete cds, alternatively spliced |
| 160 | 13385 | 26415 | 3.21 | 3.0E-04 | AL119426.1 | EST_HUMAN | DKFZp761J221_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761J221 5' |
| 200 | 13423 | 26454 | 1.7 | 3.0E-04 | P49259 | SWISSPROT | 180 KD SECRETORY PHOSPHOLIPASE A2 RECEPTOR PRECURSOR (PLA2-R) |
| 903 | 14078 | 27144 | 1.63 | 3.0E-04 | U83991.1 | NT | Human short chain acyl CoA dehydrogenase gene, exons 1 and 2 |
| 1886 | 15030 | 28137 | 1.7 | 3.0E-04 | AI262100.1 | EST_HUMAN | qz28d03.y1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2028197 5' |
| 1901 | 15044 |  | 0.97 | 3.0E-04 | AI399674.1 | EST_HUMAN | th23a02.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2119082 3' |
| 3383 | 16554 | 29568 | 4.35 | 3.0E-04 | P25147 | SWISSPROT | INTERNALIN B PRECURSOR |
| 4071 | 17227 | 30234 | 4.94 | 3.0E-04 | P49448 | SWISSPROT | GLUTAMATE DEHYDROGENASE 2 PRECURSOR (GDH) |
| 4167 | 17317 |  | 1.36 | 3.0E-04 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 4205 | 17354 |  | 1.06 | 3.0E-04 | BE140609.1 | EST_HUMAN | RC0-HT0014-310599-028 HT0014 Homo sapiens cDNA |
| 4635 | 17771 |  | 1.16 | 3.0E-04 | BE148546.1 | EST_HUMAN | MR0-HT0241-030200-008-e01 HT0241 Homo sapiens cDNA |
| 4937 | 18067 |  | 5.2 | 3.0E-04 | BE153778.1 | EST_HUMAN | PM0-HT0339-190200-007-g12 HT0339 Homo sapiens cDNA |
| 5004 | 18133 | 31107 | 0.65 | 3.0E-04 | AW937723.1 | EST_HUMAN | QV3-DT0045-221299-046-d09 DT0045 Homo sapiens cDNA |
| 6271 | 19445 |  | 5.58 | 3.0E-04 | AL163281.2 | NT | Homo sapiens chromosome 21 segment HS21C081 |
| 6959 | 20187 | 33611 | 1.54 | 3.0E-04 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7130 | 18556 | 31471 | 0.67 | 3.0E-04 | AW893981.1 | EST_HUMAN | RC4-NN0027-060400-011-b08 NN0027 Homo sapiens cDNA |
| 7765 | 20824 | 34316 | 0.73 | 3.0E-04 | P23468 | SWISSPROT | PROTEIN-TYROSINE PHOSPHATASE DELTA PRECURSOR (R-PTP-DELTA) |
| 8454 | 21535 | 35065 | 2.16 | 3.0E-04 | P22607 | SWISSPROT | FIBROBLAST GROWTH FACTOR RECEPTOR 3 PRECURSOR (FGFR-3) |
| 10124 | 23162 | 36760 | 1.26 | 3.0E-04 | AA454055.1 | EST_HUMAN | zx48d08.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:795471 5' similar to gb:M62762 VACUOLAR ATP SYNTHASE 16 KD PROTEOLIPID SUBUNIT (HUMAN); |
| 10381 | 23416 | 37025 | 0.46 | 3.0E-04 | AI992139.1 | EST_HUMAN | wt76a11.x1 Soares_thymus_NHFTh Homo sapiens cDNA clone IMAGE:2513276 3' |
| 10676 | 23710 | 37318 | 1.96 | 3.0E-04 | AA781201.1 | EST_HUMAN | aj24g05.s1 Soares_testis_NHT Homo sapiens cDNA clone 1391288 3' similar to gb:M36072 60S RIBOSOMAL PROTEIN L7A (HUMAN); |
| 12249 | 26164 | 31555 | 2.39 | 3.0E-04 | AA228301.1 | EST_HUMAN | nc38e04.r1 NCI_CGAP_Pr2 Homo sapiens cDNA clone IMAGE:1010430 similar to contains L1.t2 L1 repetitive element ; |
| 12646 | 25987 | 31769 | 2.54 | 3.0E-04 | AB018292.1 | NT | Homo sapiens mRNA for KIAA0749 protein, partial cds |
| 13114 | 25727 |  | 4.81 | 3.0E-04 | AL134483.1 | EST_HUMAN | DKFZp547L185_r1 547 (synonym: hfbr1) Homo sapiens cDNA clone DKFZp547L185 5' |
| 180 | 13403 | 26432 | 1.33 | 2.0E-04 | AF217796.1 | NT | Homo sapiens SCG10 like-protein, helicase-like protein NHL, M68, and ADP-ribosylation factor related protein 1 (ARFRP1) genes, complete cds |
| 491 | 13685 | 26719 | 2.67 | 2.0E-04 | AU146707.1 | EST_HUMAN | AU146707 HEMBB1 Homo sapiens cDNA clone HEMBB1001253 3' |
| 930 | 14105 | 27168 | 5.02 | 2.0E-04 | M86524.1 | NT | Human dystrophin gene |
| 930 | 14105 | 27169 | 6.02 | 2.0E-04 | M86524.1 | NT | Human dystrophin gene |
| 1206 | 14368 |  | 2.78 | 2.0E-04 | AI286021.1 | EST_HUMAN | qh98e11.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1855052 3' similar to contains MER3.b2 MER3 repetitive element ; |
| 1213 | 14374 |  | 2.6 | 2.0E-04 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 1879 | 15023 |  | 1.71 | 2.0E-04 | AF224268.1 | NT | Mus musculus 5' flanking region of Pitx3 gene |
| 2257 | 15390 |  | 1.21 | 2.0E-04 | AA478980.1 | EST_HUMAN | zu39b05.s1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:740337 3' similar to contains Alu repetitive element; |
| 2641 | 15764 | 28878 | 6.42 | 2.0E-04 | U66061.1 | NT | Human germline T-cell receptor beta chain TCRBV17S1A1T, TCRBV2S1, TCRBV10S1P, TCRBV29S1P, TCRBV19S1P, TCRBV15S1, TCRBV11S1A1T, HVB relic, TCRBV28S1P, TCRBV34S1, TCRBV14S1, TCRBV3S1, TCRBV4S1A1T, TRY4, TRY5, TRY6, TRY7, TRY8, TCRBD1, TCRBJ1S1, TCRBJ1S2,> |
| 3052 | 16228 | 29248 | 1.23 | 2.0E-04 | AI124529.1 | EST_HUMAN | am58c09.x1 Johnston frontal cortex Homo sapiens cDNA clone IMAGE:1639760 3' |
| 3415 | 16584 | 29600 | 0.82 | 2.0E-04 | 5174736 | NT | Homo sapiens tubulin, beta, 4 (TUBB4) mRNA |
| 3622 | 16688 | 29697 | 2.56 | 2.0E-04 | BE082317.1 | EST_HUMAN | QV2-BT0636-070500-194-b07 BT0636 Homo sapiens cDNA |
| 4022 | 17178 | 30187 | 0.98 | 2.0E-04 | AW978441.1 | EST_HUMAN | EST390550 MAGE resequences, MAGP Homo sapiens cDNA |
| 4261 | 17406 |  | 5.5 | 2.0E-04 | U01029.1 | NT | Phaseolus vulgaris nitrate reductase (PVNR2) gene, complete cds |
| 4791 | 17926 | 30914 | 1.75 | 2.0E-04 | H96265.1 | EST_HUMAN | yu01e11.r1 Soares_pineal_gland_N3HPG Homo sapiens cDNA clone IMAGE:232556 5' |
| 4791 | 17926 | 30915 | 1.75 | 2.0E-04 | H96265.1 | EST_HUMAN | yu01e11.r1 Soares_pineal_gland_N3HPG Homo sapiens cDNA clone IMAGE:232556 5' |

Table 4

Sirigle Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4916 | 18046 | | 1.22 | 2.0E-04 | U09226.1 | NT | Gallus gallus proteasome 28 kDa subunit homolog mRNA, complete cds |
| 5171 | 18293 | 31256 | 1.47 | 2.0E-04 | AB037997.1 | NT | Danio rerio hagoromo gene, exons 1 to 6, partial cds |
| 5216 | 18337 | 31310 | 0.92 | 2.0E-04 | AF057019.1 | NT | Dictyostelium discoideum interaptin (abpD) gene, complete cds |
| 5661 | 18855 | 32138 | 1.11 | 2.0E-04 | AV654352.1 | EST_HUMAN | AV654352 GLC Homo sapiens cDNA clone GLCDUH10 3' |
| 5674 | 18868 | 32154 | 1.83 | 2.0E-04 | AI690862.1 | EST_HUMAN | tq03b11.x1 NCI_CGAP_Ut3 Homo sapiens cDNA clone IMAGE:2207709 3' |
| 5868 | 19058 | 32365 | 0.93 | 2.0E-04 | AA296652.1 | EST_HUMAN | EST11191 Uterus Homo sapiens cDNA 5' end similar to EST containing O family repeat |
| 6068 | 19250 | 32578 | 0.92 | 2.0E-04 | 4758179 | NT | Homo sapiens cell cycle progression 3 protein (DNJ3) mRNA |
| 6368 | 19538 | 32897 | 1.01 | 2.0E-04 | AF140708.1 | NT | Mus musculus G protein coupled receptor gene, complete cds; and unknown gene |
| 7378 | 20457 | | 2.57 | 2.0E-04 | AU121712.1 | EST_HUMAN | AU121712 MAMMA1 Homo sapiens cDNA clone MAMMA1000798 5' |
| 7478 | 20553 | | 0.84 | 2.0E-04 | AW860963.1 | EST_HUMAN | QV0-CT0387-180300-167-e10 CT0387 Homo sapiens cDNA |
| 7798 | 20854 | | 13.66 | 2.0E-04 | P08548 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 7808 | 20863 | 34357 | 1.45 | 2.0E-04 | P54296 | SWISSPROT | MYOMESIN 2 (M-PROTEIN) (165 KD TITIN-ASSOCIATED PROTEIN) (165 KD CONNECTIN-ASSOCIATED PROTEIN) |
| 8142 | 21224 | 34743 | 1.02 | 2.0E-04 | U32444.2 | NT | Solanum lycopersicum phytochrome F (PHYF) gene, partial cds |
| 8142 | 21224 | 34744 | 1.02 | 2.0E-04 | U32444.2 | NT | Solanum lycopersicum phytochrome F (PHYF) gene, partial cds |
| 8479 | 21560 | 35094 | 1.24 | 2.0E-04 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 8479 | 21560 | 35095 | 1.24 | 2.0E-04 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 8763 | 21842 | 35383 | 2.14 | 2.0E-04 | AF020503.1 | NT | Homo sapiens FRA3B common fragile region, diadenosine triphosphate hydrolase (FHIT) gene, exon 5 |
| 8941 | 22020 | 35561 | 0.67 | 2.0E-04 | X57331.1 | NT | Human immunoglobulin C(mu) and C(delta) heavy chain genes (constant regions) |
| 9535 | 22600 | 36173 | 0.58 | 2.0E-04 | AA725700.1 | EST_HUMAN | al22a12.s1 Soares_testis_NHT Homo sapiens cDNA clone 1343518 3' |
| 9619 | 22674 | 36244 | 0.47 | 2.0E-04 | P18715 | SWISSPROT | GASTRULA ZINC FINGER PROTEIN XLCGF26.1 |
| 10180 | 23217 | 36808 | 1.16 | 2.0E-04 | BE149303.1 | EST_HUMAN | RC3-HT0254-151099-011-b05 HT0254 Homo sapiens cDNA |
| 10223 | 23259 | 36847 | 2.06 | 2.0E-04 | AA405777.1 | EST_HUMAN | zu66c11.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:742964 5' |
| 11088 | 24162 | 37798 | 3.88 | 2.0E-04 | AV730373.1 | EST_HUMAN | AV730373 HTF Homo sapiens cDNA clone HTFAAA01 5' |
| 11585 | 24638 | 38318 | 2.68 | 2.0E-04 | AI440282.1 | EST_HUMAN | tj01f11.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2140269 3' similar to contains Alu repetitive element; |
| 11710 | 24750 | 38443 | 2.39 | 2.0E-04 | AW136740.1 | EST_HUMAN | UI-H-BI1-adm-c-04-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2717190 3' |
| 11859 | 24847 | | 2.71 | 2.0E-04 | BE065781.1 | EST_HUMAN | RC2-BT0317-150200-011-h04 BT0317 Homo sapiens cDNA |
| 12106 | 25086 | 38790 | 32.04 | 2.0E-04 | P21733 | SWISSPROT | HYPOTHETICAL 29.1 KD PROTEIN IN CRYB1 5'REGION (ORF2) |
| 12121 | 25101 | 38806 | 2.05 | 2.0E-04 | L19248.1 | NT | Caenorhabditis elegans homeodomain protein (lin-39) mRNA, complete cds |
| 13191 | 26179 | | 1.29 | 2.0E-04 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 788 | 13967 | 27018 | 0.96 | 1.0E-04 | H99646.1 | EST_HUMAN | yx26c09.s1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:262864 3' similar to contains L1.t1 L1 repetitive element ; |
| 1100 | 14265 | 27322 | 2.86 | 1.0E-04 | P11369 | SWISSPROT | RETROVIRUS-RELATED POL POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; ENDONUCLEASE] |
| 1138 | 14303 | 27358 | 3.79 | 1.0E-04 | AW013847.1 | EST_HUMAN | UI-H-BI0-aab-e-09-0-UI.s1 NCI_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2708825 3' |
| 1138 | 14303 | 27359 | 3.79 | 1.0E-04 | AW013847.1 | EST_HUMAN | UI-H-BI0-aab-e-09-0-UI.s1 NCI_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2708825 3' |
| 1363 | 14517 |  | 2.65 | 1.0E-04 | U62918.1 | NT | Anguilla anguilla dopamine D1A1 receptor (d1A1) gene, complete cds |
| 1657 | 14810 | 27894 | 4.23 | 1.0E-04 | AF148805.1 | NT | Kaposi's sarcoma-associated herpesvirus ORF 68 gene, partial cds; and ORF 69, kaposin, v-FLIP, v-cyclin, latent nuclear antigen, ORF K14, v-GPCR, putative phosphoribosylformylglycinamidine synthase, and LAMP (LAMP) genes, complete cds |
| 1657 | 14810 | 27895 | 4.23 | 1.0E-04 | AF148805.1 | NT | Kaposi's sarcoma-associated herpesvirus ORF 68 gene, partial cds; and ORF 69, kaposin, v-FLIP, v-cyclin, latent nuclear antigen, ORF K14, v-GPCR, putative phosphoribosylformylglycinamidine synthase, and LAMP (LAMP) genes, complete cds |
| 1909 | 15052 | 28164 | 2.02 | 1.0E-04 | AB048342.1 | NT | Equus caballus DNA, chromosome 24q14, microsatellite TKY36 |
| 2752 | 15869 | 28978 | 1.06 | 1.0E-04 | BE218833.1 | EST_HUMAN | hv45c08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3176366 3' |
| 2752 | 15869 | 28979 | 1.06 | 1.0E-04 | BE218833.1 | EST_HUMAN | hv45c08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3176366 3' |
| 3356 | 16528 | 29543 | 1.18 | 1.0E-04 | Q62203 | SWISSPROT | SPLICEOSOME ASSOCIATED PROTEIN 62 (SAP 62) (SPLICING FACTOR 3A SUBUNIT 2) (SF3A66) |
| 3829 | 16989 | 29992 | 0.86 | 1.0E-04 | AI440282.1 | EST_HUMAN | tj01f11.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2140269 3' similar to contains Alu repetitive element; |
| 4171 | 17321 | 30314 | 1.72 | 1.0E-04 | M14042.1 | NT | Mouse alpha 1 type-IV collagen mRNA |
| 4192 | 17342 | 30335 | 1.12 | 1.0E-04 | AV647727.1 | EST_HUMAN | AV647727 GLC Homo sapiens cDNA clone GLCBBD04 3' |
| 5207 | 18328 | 31298 | 1.24 | 1.0E-04 | 7662015 | NT | Homo sapiens KIAA0237 gene product (KIAA0237), mRNA |
| 5207 | 18328 | 31299 | 1.24 | 1.0E-04 | 7662015 | NT | Homo sapiens KIAA0237 gene product (KIAA0237), mRNA |
| 5980 | 19165 | 32485 | 1.35 | 1.0E-04 | P08547 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 6569 | 19731 | 33109 | 0.95 | 1.0E-04 | AA177111.1 | EST_HUMAN | nc02e12.s1 NCI_CGAP_Pr3 Homo sapiens cDNA clone IMAGE:252 |
| 6977 | 20205 | 33633 | 0.66 | 1.0E-04 | AA564561.1 | EST_HUMAN | nj25a04.s1 NCI_CGAP_AA1 Homo sapiens cDNA clone IMAGE:993486 3' similar to gb:M97252 KALLMANN SYNDROME PROTEIN PRECURSOR (HUMAN);contains Alu repetitive element; |
| 7336 | 20417 | 33879 | 12.52 | 1.0E-04 | AI251980.1 | EST_HUMAN | qv57d10.x1 NCI_CGAP_Ov32 Homo sapiens cDNA clone IMAGE:1985683 3' |
| 7744 | 20417 | 33879 | 13.49 | 1.0E-04 | AI251980.1 | EST_HUMAN | qv57d10.x1 NCI_CGAP_Ov32 Homo sapiens cDNA clone IMAGE:1985683 3' |
| 8184 | 21266 | 34789 | 1.02 | 1.0E-04 | AA630453.1 | EST_HUMAN | ab94g08.s1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:854654 3' |
| 9538 | 22603 | 36175 | 2.75 | 1.0E-04 | AI806220.1 | EST_HUMAN | wf26e08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2356742 3' |
| 9548 | 22613 | 36182 | 1.54 | 1.0E-04 | O88969 | SWISSPROT | CYSTATIN-RELATED EPIDIDYMAL SPERMATOGENIC PROTEIN PRECURSOR (CYSTATIN 8) |
| 9625 | 22680 |  | 0.76 | 1.0E-04 | T77153.1 | EST_HUMAN | yd72c08.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:113774 5' |
| 9846 | 22886 | 36466 | 1.06 | 1.0E-04 | 10863876 | NT | Homo sapiens phospholipid scramblase 1 (PLSCR1), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10382 | 23417 |  | 3.59 | 1.0E-04 | P08547 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 10420 | 23455 | 37060 | 1.12 | 1.0E-04 | P08548 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 10775 | 23808 | 37431 | 0.46 | 1.0E-04 | P51786 | SWISSPROT | ZINC FINGER PROTEIN 157 |
| 11622 | 24673 |  | 2.3 | 1.0E-04 | M28587.1 | NT | Mouse alpha leukocyte interferon gene, complete cds |
| 11950 | 24936 | 38637 | 1.81 | 1.0E-04 | AB032968.1 | NT | Homo sapiens mRNA for KIAA1142 protein, partial cds |
| 11991 | 24976 | 38680 | 1.94 | 1.0E-04 | AW269061.1 | EST_HUMAN | xv49g12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2816518 3' |
| 12024 | 25008 | 38709 | 1.57 | 1.0E-04 | Q03696 | SWISSPROT | NEURONAL-GLIAL CELL ADHESION MOLECULE PRECURSOR (NG-CAM) |
| 12024 | 25008 | 38710 | 1.57 | 1.0E-04 | Q03696 | SWISSPROT | NEURONAL-GLIAL CELL ADHESION MOLECULE PRECURSOR (NG-CAM) |
| 716 | 13898 | 26936 | 2.44 | 9.0E-05 | AA718933.1 | EST_HUMAN | ah45c11.s1 Soares_testis_NHT Homo sapiens cDNA clone 1292468 3' |
| 4196 | 17346 | 30338 | 1.13 | 9.0E-05 | AI762209.1 | EST_HUMAN | wi54c11.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:2394068 3' similar to contains MER6.t1 MER6 repetitive element ; |
| 6084 | 19266 | 32596 | 1.37 | 9.0E-05 | Q60716 | SWISSPROT | PROLYL 4-HYDROXYLASE ALPHA-2 SUBUNIT PRECURSOR |
| 7751 | 20811 | 34301 | 2.44 | 9.0E-05 | AW204958.1 | EST_HUMAN | UI-H-BI1-aer-d-05-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2720289 3' |
| 7751 | 20811 | 34302 | 2.44 | 9.0E-05 | AW204958.1 | EST_HUMAN | UI-H-BI1-aer-d-05-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2720289 3' |
| 9677 | 22639 |  | 3.03 | 9.0E-05 | D85606.1 | NT | Homo sapiens gene for cholecystokinin type-A receptor, complete cds |
| 9679 | 22641 | 36211 | 3.3 | 9.0E-05 | AF120982.1 | NT | Homo sapiens methyl-CpG binding protein 1 (MBD1) gene, exon 15b |
| 11402 | 24463 | 38127 | 2.31 | 9.0E-05 | AW073078.1 | EST_HUMAN | xa34g05.x1 NCI_CGAP_Br18 Homo sapiens cDNA clone IMAGE:2568728 3' similar to contains L1.t2 L1 repetitive element ; |
| 11518 | 24574 | 38251 | 1.61 | 9.0E-05 | AI287878.1 | EST_HUMAN | qv23f06.x1 NCI_CGAP_Lym6 Homo sapiens cDNA clone IMAGE:1982435 3' similar to contains element MIR repetitive element ; |
| 11916 | 19266 | 32595 | 3.41 | 9.0E-05 | Q60716 | SWISSPROT | PROLYL 4-HYDROXYLASE ALPHA-2 SUBUNIT PRECURSOR |
| 12469 | 26016 |  | 3.37 | 9.0E-05 | AF129756.1 | NT | Homo sapiens MSH55 gene, partial cds; and CLIC1, DDAH, G6b, G6c, G5b, G6d, G6e, G6f, BAT5, G5b, CSK2B, BAT4, G4, Apo M, BAT3, BAT2, AIF-1, 1C7, LST-1, LTB, TNF, and LTA genes, complete cds |
| 844 | 14022 | 27080 | 1.22 | 8.0E-05 | AJ251646.1 | NT | Pisum sativum mRNA for beta-1,3 glucanase (gns2 gene) |
| 887 | 14063 |  | 3.11 | 8.0E-05 | AJ251646.1 | NT | Pisum sativum mRNA for beta-1,3 glucanase (gns2 gene) |
| 3015 | 16191 |  | 1.01 | 8.0E-05 | M83575.1 | NT | Human platelet-derived growth factor A chain (PDGFA) gene, exons only |
| 4604 | 17741 | 30719 | 0.78 | 8.0E-05 | AW044605.1 | EST_HUMAN | wy78a04.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2554638 3' |
| 8948 | 22027 | 35568 | 0.51 | 8.0E-05 | Y11666.1 | NT | Mus musculus gene for hexokinase II, exon 1 (and joined CDS) |
| 11419 | 24480 | 38146 | 2.58 | 8.0E-05 | M69197.1 | NT | Human haptoglobin and haptoglobin-related protein (HP and HPR) genes, complete cds |
| 13169 | 26001 |  | 1.78 | 8.0E-05 | AA279333.1 | EST_HUMAN | zs88h01.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:704593 3' similar to contains Alu repetitive element;contains element MSR1 repetitive element ; |
| 357 | 13568 | 26596 | 3.16 | 7.0E-05 | AW847445.1 | EST_HUMAN | RC3-CT0208-220999-011-E04 CT0208 Homo sapiens cDNA |
| 357 | 13568 | 26597 | 3.16 | 7.0E-05 | AW847445.1 | EST_HUMAN | RC3-CT0208-220999-011-E04 CT0208 Homo sapiens cDNA |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 581 | 13773 | 26793 | 1.14 | 7.0E-05 | L49075.1 | EST_HUMAN | HUM072014F Human fovea cDNA Homo sapiens cDNA clone EST HFD072014 |
| 581 | 13773 | 26794 | 1.14 | 7.0E-05 | L49075.1 | EST_HUMAN | HUM072014F Human fovea cDNA Homo sapiens cDNA clone EST HFD072014 |
| 1080 | 14246 | 27303 | 1.07 | 7.0E-05 | Q22949 | SWISSPROT | PROBABLE GLYCEROL-3-PHOSPHATE ACYLTRANSFERASE, MITOCHONDRIAL PRECURSOR (GPAT) |
| 2783 | 15899 | 29008 | 5.16 | 7.0E-05 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 3227 | 16401 | 29413 | 3.9 | 7.0E-05 | AB009080.1 | NT | Dictyostelium discoideum gene for TRFA, complete cds |
| 4168 | 17318 |  | 0.85 | 7.0E-05 | AF111167.2 | NT | Homo sapiens jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene |
| 4492 | 17632 | 30614 | 1.88 | 7.0E-05 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 5041 | 18169 | 31144 | 0.68 | 7.0E-05 | 9845300 | NT | Rat cytomegalovirus Maastricht, complete genome |
| 8420 | 21501 | 35033 | 1.24 | 7.0E-05 | AA505582.1 | EST_HUMAN | nh93g01.s1 NCI_CGAP_Br2 Homo sapiens cDNA clone IMAGE:966096 3' |
| 9753 | 22691 | 36261 | 3.6 | 7.0E-05 | T07095.1 | EST_HUMAN | EST04984 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBED60 |
| 11430 | 24491 |  | 5.87 | 7.0E-05 | 10835046 | NT | Homo sapiens sarcoglycan, epsilon (SGCE), mRNA |
| 2083 | 15223 | 28344 | 1.59 | 6.0E-05 | 4885170 | NT | Homo sapiens chromosome X open reading frame 6 (CXORF6) mRNA |
| 2083 | 15223 | 28345 | 1.59 | 6.0E-05 | 4885170 | NT | Homo sapiens chromosome X open reading frame 6 (CXORF6) mRNA |
| 2655 | 15778 | 28892 | 1.66 | 6.0E-05 | AI655241.1 | EST_HUMAN | wb54h06.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2309531 3' similar to gb:J03250 DNA TOPOISOMERASE I (HUMAN); |
| 2875 | 13880 | 26912 | 2.54 | 6.0E-05 | AF053630.1 | NT | Homo sapiens monocyte/neutrophil elastase inhibitor gene, complete cds |
| 6034 | 19217 | 32538 | 3.26 | 6.0E-05 | Q12860 | SWISSPROT | CONTACTIN PRECURSOR (GLYCOPROTEIN GP135) |
| 6034 | 19217 | 32539 | 3.26 | 6.0E-05 | Q12860 | SWISSPROT | CONTACTIN PRECURSOR (GLYCOPROTEIN GP135) |
| 6533 | 19697 | 33070 | 1.5 | 6.0E-05 | N72829.1 | EST_HUMAN | yv50g11.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:246212 5' |
| 7073 | 20126 | 33542 | 0.74 | 6.0E-05 | AA897680.1 | EST_HUMAN | oj80a03.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1504588 3' |
| 8276 | 21358 | 34876 | 1.03 | 6.0E-05 | BE064410.1 | EST_HUMAN | RC4-BT0311-141199-011-h06 BT0311 Homo sapiens cDNA |
| 8276 | 21358 | 34877 | 1.03 | 6.0E-05 | BE064410.1 | EST_HUMAN | RC4-BT0311-141199-011-h06 BT0311 Homo sapiens cDNA |
| 8638 | 21718 | 35255 | 0.62 | 6.0E-05 | AA150482.1 | EST_HUMAN | zl08c08.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:491726 3' similar to contains element MER28 repetitive element ; |
| 8643 | 21723 | 35260 | 2.62 | 6.0E-05 | AW896629.1 | EST_HUMAN | PM4-NN0050-310300-001-f10 NN0050 Homo sapiens cDNA |
| 8780 | 21859 | 35402 | 2.93 | 6.0E-05 | Q60401 | SWISSPROT | COMPLEMENT DECAY-ACCELERATING FACTOR PRECURSOR |
| 9452 | 22568 | 36134 | 1.59 | 6.0E-05 | P08607 | SWISSPROT | C4B-BINDING PROTEIN PRECURSOR (C4BP) |
| 9462 | 22568 | 36135 | 1.59 | 6.0E-05 | P08607 | SWISSPROT | C4B-BINDING PROTEIN PRECURSOR (C4BP) |
| 9721 | 22786 | 36357 | 1.77 | 6.0E-05 | T94149.1 | EST_HUMAN | ye28c12.r1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:119062 5' |
| 9922 | 22962 | 36550 | 0.69 | 6.0E-05 | AW627985.1 | EST_HUMAN | hi37a03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2974444 3' |
| 10987 | 24066 | 37701 | 2.42 | 6.0E-05 | R75639.1 | EST_HUMAN | yi59d08.s1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:143535 3' similar to contains Alu repetitive element;contains LTR7 repetitive element ; |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11807 | 24797 | 38495 | 2.7 | 6.0E-05 | AA044015.1 | EST_HUMAN | zk68f02.r1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:487035 5' |
| 12699 | 25999 | 31773 | 9.37 | 6.0E-05 | AW890110.1 | EST_HUMAN | MR0-NT0038-250400-001-f09 NT0038 Homo sapiens cDNA |
| 1435 | 14588 | 27661 | 20.87 | 5.0E-05 | AW392086.1 | EST_HUMAN | QV4-ST0234-241199-040-h11 ST0234 Homo sapiens cDNA |
| 1912 | 16055 | | 1.07 | 5.0E-05 | 8923891 | NT | Homo sapiens 22kDa peroxisomal membrane protein-like (LOC55895), mRNA |
| 2924 | 16102 | 29116 | 0.64 | 5.0E-05 | AJ251058.1 | NT | Homo sapiens MEP1A gene, promoter region and exon 1 |
| 4088 | 17243 | 30250 | 3.16 | 5.0E-05 | AJ251884.1 | NT | Homo sapiens partial SLC22A3 gene for extraneuronal monoamine transporter (EMT), exon 1 |
| 5642 | 18836 | 31913 | 11.81 | 5.0E-05 | X58855.1 | NT | Human MLC1emb gene for embryonic myosin alkaline light chain, 3'UTR |
| 6115 | 19295 | 32630 | 3.58 | 5.0E-05 | AV653544.1 | EST_HUMAN | AV653544 GLC Homo sapiens cDNA clone GLCDMA06 3' |
| 6297 | 19470 | 32825 | 0.97 | 5.0E-05 | AF260225.1 | NT | Homo sapiens TESTIN 2 and TESTIN 3 genes, complete cds, alternatively spliced |
| 7485 | 20560 | | 1.4 | 5.0E-05 | AB037964.1 | NT | Mus musculus gene for calretinin, exon 1 |
| 12466 | 25503 | | 5.26 | 5.0E-05 | P49193 | SWISSPROT | RETINAL-BINDING PROTEIN (RALBP) |
| 12759 | 25503 | | 6.9 | 5.0E-05 | P49193 | SWISSPROT | RETINAL-BINDING PROTEIN (RALBP) |
| 2868 | 13457 | | 2.73 | 4.0E-05 | U12821.1 | NT | Human renin (REN) gene, 5' flanking region |
| 4606 | 17742 | 30720 | 0.76 | 4.0E-05 | P49193 | SWISSPROT | RETINAL-BINDING PROTEIN (RALBP) |
| 4605 | 17742 | 30721 | 0.76 | 4.0E-05 | P49193 | SWISSPROT | RETINAL-BINDING PROTEIN (RALBP) |
| 4997 | 18126 | | 0.95 | 4.0E-05 | AF164488.1 | NT | Cryptosporidium parvum isolate Zaire 15 kDa glycoprotein gp15 gene, partial cds |
| 5131 | 18256 | 31222 | 0.73 | 4.0E-05 | AF212313.1 | NT | Drosophila melanogaster senseless protein (sens) gene, complete cds |
| 9723 | 22788 | | 6.75 | 4.0E-05 | AF202635.1 | NT | Homo sapiens PP1200 mRNA, complete cds |
| 10617 | 23651 | 37260 | 0.54 | 4.0E-05 | P23780 | SWISSPROT | BETA-GALACTOSIDASE PRECURSOR (LACTASE) (ACID BETA-GALACTOSIDASE) |
| 11007 | 24086 | 37723 | 4.14 | 4.0E-05 | AW627946.1 | EST_HUMAN | hi36c07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2974380 3' similar to contains element MIR repetitive element ; |
| 12343 | 25248 | 32113 | 3.27 | 4.0E-05 | AL163252.2 | NT | Homo sapiens chromosome 21 segment HS21C052 |
| 12426 | 25302 | | 1.47 | 4.0E-05 | AW117580.1 | EST_HUMAN | xd93e09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2605192 3' |
| 13189 | 25773 | | 1.16 | 4.0E-05 | AA417756.1 | EST_HUMAN | zv01e11.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:746252 3' |
| 698 | 13881 | 26914 | 0.8 | 3.0E-05 | AI248061.1 | EST_HUMAN | qh64c10.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1849458 3' similar to contains Alu repetitive element;contains element KER repetitive element ; |
| 1084 | 14250 | 27307 | 1.16 | 3.0E-05 | AW273851.1 | EST_HUMAN | xv24g03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2814100 3' |
| 1550 | 14702 | 27781 | 3.73 | 3.0E-05 | BE169211.1 | EST_HUMAN | PM1-HT0521-120200-001-e10 HT0521 Homo sapiens cDNA |
| 1550 | 14702 | 27782 | 3.73 | 3.0E-05 | BE169211.1 | EST_HUMAN | PM1-HT0521-120200-001-e10 HT0521 Homo sapiens cDNA |
| 3365 | 16537 | | 0.7 | 3.0E-05 | AI288919.1 | EST_HUMAN | ql91g11.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1879748 3' similar to TR:O08632 O08632 GLYCINE TYROSINE-RICH HAIR PROTEIN. ; |
| 4501 | 17641 | 30625 | 7.91 | 3.0E-05 | BE169211.1 | EST_HUMAN | PM1-HT0521-120200-001-e10 HT0521 Homo sapiens cDNA |
| 4501 | 17641 | 30626 | 7.91 | 3.0E-05 | BE169211.1 | EST_HUMAN | PM1-HT0521-120200-001-e10 HT0521 Homo sapiens cDNA |
| 4588 | 17725 | 30707 | 1.11 | 3.0E-05 | AA368679.1 | EST_HUMAN | EST79996 Placenta I Homo sapiens cDNA similar to similar to p53-associated protein |

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## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4588 | 17725 | 30708 | 1.11 | 3.0E-05 | AA368679.1 | EST_HUMAN | EST79996 Placenta I Homo sapiens cDNA similar to similar to p53-associated protein |
| 4741 | 17876 | 30859 | 0.93 | 3.0E-05 | AF149773.1 | NT | Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3 |
| 4969 | 13881 | 26914 | 0.7 | 3.0E-05 | AI248061.1 | EST_HUMAN | qh64c10.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1849458 3' similar to contains Alu repetitive element;contains element KER repetitive element ; |
| 5675 | 18669 | 32155 | 1.72 | 3.0E-05 | 11072102 | NT | Mus musculus myosin light chain 2, precursor lymphocyte-specific (Mylc2pl), mRNA |
| 6897 | 20047 | 33456 | 1.21 | 3.0E-05 | AJ225782.1 | NT | Homo sapiens SYBL1 gene, exons 6-8 |
| 6897 | 20047 | 33457 | 1.21 | 3.0E-05 | AJ225782.1 | NT | Homo sapiens SYBL1 gene, exons 6-8 |
| 8082 | 21164 | 34681 | 2.26 | 3.0E-05 | BE733157.1 | EST_HUMAN | 601567451F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3842292 5' |
| 8547 | 21628 | 35166 | 1.55 | 3.0E-05 | AA284049.1 | EST_HUMAN | zs60b06.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:701841 3' |
| 9094 | 22173 | 35718 | 1.56 | 3.0E-05 | AW770982.1 | EST_HUMAN | hl94e08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3009638 3' |
| 9098 | 22177 | 35721 | 1.63 | 3.0E-05 | 6912431 | NT | Homo sapiens interleukin-1 receptor antagonist homolog 1 (IL1HY1), mRNA |
| 9102 | 22181 | 35726 | 0.59 | 3.0E-05 | P43361 | SWISSPROT | MELANOMA-ASSOCIATED ANTIGEN 8 (MAGE-8 ANTIGEN) |
| 9331 | 22407 |  | 0.51 | 3.0E-05 | X03273.1 | NT | Human Alu-family cluster 5' of alpha(1)-acid glycoprotein gene |
| 9521 | 22586 | 36154 | 1.4 | 3.0E-05 | AA372562.1 | EST_HUMAN | EST84475 Colon adenocarcinoma IV Homo sapiens cDNA 5' end |
| 9863 | 22903 |  | 3.62 | 3.0E-05 | AI769331.1 | EST_HUMAN | wg36f09.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2367209 3' |
| 10755 | 23788 | 37403 | 0.92 | 3.0E-05 | Q62918 | SWISSPROT | PROTEIN KINASE C-BINDING PROTEIN NELL2 PRECURSOR (NEL-LIKE PROTEIN 2) |
| 10755 | 23788 | 37404 | 0.92 | 3.0E-05 | Q62918 | SWISSPROT | PROTEIN KINASE C-BINDING PROTEIN NELL2 PRECURSOR (NEL-LIKE PROTEIN 2) |
| 12353 | 25255 |  | 1.61 | 3.0E-05 | L77570.1 | NT | Homo sapiens DiGeorge syndrome critical region, centromeric end |
| 12551 | 25374 |  | 1.37 | 3.0E-05 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 12913 | 26196 |  | 1.29 | 3.0E-05 | AW518689.1 | EST_HUMAN | xs89d06.x1 NCI_CGAP_Ut2 Homo sapiens cDNA clone IMAGE:2776811 3' |
| 2400 | 15531 | 28658 | 1.49 | 2.0E-05 | AI286021.1 | EST_HUMAN | qh98e11.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1855052 3' similar to contains MER3.b2 MER3 repetitive element ; |
| 2650 | 15773 | 28886 | 14.63 | 2.0E-05 | M13792.1 | NT | Human adenosine deaminase (ADA) gene, complete cds |
| 2777 | 15893 |  | 6.99 | 2.0E-05 | AA160562.1 | EST_HUMAN | zq48a12.r1 Stratagene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:632734 5' similar to contains Alu repetitive element;contains element L1 repetitive element ; |
| 3207 | 16382 | 29393 | 1.29 | 2.0E-05 | BE066036.1 | EST_HUMAN | RC3-BT0319-120200-014-h08 BT0319 Homo sapiens cDNA |
| 3429 | 16597 | 29613 | 1.04 | 2.0E-05 | AF184614.1 | NT | Homo sapiens p47-phox (NCF1) gene, complete cds |
| 3455 | 16622 | 29643 | 1.12 | 2.0E-05 | X89211.1 | NT | H.sapiens DNA for endogenous retroviral like element |
| 3583 | 16748 |  | 0.87 | 2.0E-05 | X95465.1 | NT | S.cerevisiae 12.8 Kbp fragment of the left arm of chromosome XV |
| 3909 | 17068 |  | 0.81 | 2.0E-05 | AL039107.1 | EST_HUMAN | DKFZp566I064_r1 566 (synonym: hfkd2) Homo sapiens cDNA clone DKFZp566I064 5' |
| 5003 | 18132 | 31106 | 0.6 | 2.0E-05 | AJ131016.1 | NT | Homo sapiens SCL gene locus |
| 5878 | 19068 | 32376 | 1.84 | 2.0E-05 | AJ011712.1 | NT | Homo sapiens TNNT1 gene, exons 1-11 (and joined CDS) |
| 6039 | 19222 |  | 0.87 | 2.0E-05 | AF029308.1 | NT | Homo sapiens chromosome 9 duplication of the T cell receptor beta locus and trypsinogen gene families |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6092 | 19273 | 32601 | 0.91 | 2.0E-05 | Q13183 | SWISSPROT | RENAL SODIUM/DICARBOXYLATE COTRANSPORTER (NA(+)/DICARBOXYLATE COTRANSPORTER) |
| 6092 | 19273 | 32602 | 0.91 | 2.0E-05 | Q13183 | SWISSPROT | RENAL SODIUM/DICARBOXYLATE COTRANSPORTER (NA(+)/DICARBOXYLATE COTRANSPORTER) |
| 6286 | 19459 | 32811 | 0.79 | 2.0E-05 | AI149272.1 | EST_HUMAN | qo72a02.x1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:1716114 3' similar to contains L1.t3 L1 repetitive element ; |
| 6760 | 19916 | 33311 | 2.11 | 2.0E-05 | AA714330.1 | EST_HUMAN | nw06d12.s1 NCI_CGAP_SS1 Homo sapiens cDNA clone IMAGE:1238519 3' |
| 7042 | 20096 | 33511 | 1.69 | 2.0E-05 | Y08926.1 | NT | P.falciparum mRNA for AARP1 protein, partial |
| 7054 | 20107 | 33523 | 1 | 2.0E-05 | AI492960.1 | EST_HUMAN | qz47b06.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2030003 3' similar to TR:O02711 O02711 PRO-POL-DUTPASE POLYPROTEIN ; |
| 7062 | 20115 |  | 7.24 | 2.0E-05 | AI991025.1 | EST_HUMAN | wu35h07.x1 Soares_Dieckgraefe_colon_NHCD Homo sapiens cDNA clone IMAGE:2522077 3' |
| 7303 | 20385 | 33844 | 2 | 2.0E-05 | AF224262.1 | NT | Heterodontus francisci HoxA10 (HoxA10), HoxA9 (HoxA9), HoxA7 (HoxA7), HoxA6 (HoxA6), HoxA5 (HoxA5), HoxA4 (HoxA4), HoxA3 (HoxA3), HoxA2 (HoxA2), and HoxA1 (HoxA1) genes, complete cds |
| 7303 | 20385 | 33845 | 2 | 2.0E-05 | AF224262.1 | NT | Heterodontus francisci HoxA10 (HoxA10), HoxA9 (HoxA9), HoxA7 (HoxA7), HoxA6 (HoxA6), HoxA5 (HoxA5), HoxA4 (HoxA4), HoxA3 (HoxA3), HoxA2 (HoxA2), and HoxA1 (HoxA1) genes, complete cds |
| 7524 | 20597 |  | 0.77 | 2.0E-05 | AF128847.1 | NT | Homo sapiens indolethylamine N-methyltransferase (INMT) mRNA, INMT-2 allele, complete cds |
| 8069 | 21151 | 34671 | 1.58 | 2.0E-05 | AI381040.1 | EST_HUMAN | tg20h05.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2109369 3' |
| 9467 | 22524 | 36087 | 0.56 | 2.0E-05 | P49457 | SWISSPROT | COMPLEMENT DECAY-ACCELERATING FACTOR (CD55) |
| 9467 | 22524 | 36088 | 0.56 | 2.0E-05 | P49457 | SWISSPROT | COMPLEMENT DECAY-ACCELERATING FACTOR (CD55) |
| 10127 | 23165 | 36764 | 0.6 | 2.0E-05 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 10339 | 23374 | 36984 | 0.94 | 2.0E-05 | BF055939.1 | EST_HUMAN | 7i75g09.y1 NCI_CGAP_Brn20 Homo sapiens cDNA clone IMAGE:3340576 5' |
| 10817 | 23850 | 37472 | 3.53 | 2.0E-05 | N41751.1 | EST_HUMAN | yw91a06.r1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:259570 5' |
| 10817 | 23850 | 37473 | 3.53 | 2.0E-05 | N41751.1 | EST_HUMAN | yw91a06.r1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:259570 5' |
| 10881 | 20115 |  | 2.66 | 2.0E-05 | AI991026.1 | EST_HUMAN | wu35h07.x1 Soares_Dieckgraefe_colon_NHCD Homo sapiens cDNA clone IMAGE:2522077 3' |
| 11738 | 23924 | 37549 | 1.55 | 2.0E-05 | BE175801.1 | EST_HUMAN | RC5-HT0582-280300-012-E12 HT0582 Homo sapiens cDNA |
| 11981 | 24966 | 38668 | 5.74 | 2.0E-05 | AI912713.1 | EST_HUMAN | we12h05.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2340921 3' |
| 12477 | 25921 |  | 3.7 | 2.0E-05 | BE348229.1 | EST_HUMAN | hw21a03.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3183532 3' similar to TR:Q12832 Q12832 GLYCOPHORIN HEP2 ; |
| 12592 | 26104 |  | 8.13 | 2.0E-05 | AW074604.1 | EST_HUMAN | xa89a03.x1 NCI_CGAP_Co17 Homo sapiens cDNA clone IMAGE:2573932 3' similar to contains L1.b3 L1 repetitive element ; |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 12660 | 25905 | | 3.24 | 2.0E-05 | AF275948.1 | NT | Homo sapiens ABCA1 (ABCA1) gene, complete cds |
| 12825 | 25551 | 32014 | 2.01 | 2.0E-05 | AU131613.1 | EST_HUMAN | AU131513 NT2RP3 Homo sapiens cDNA clone NT2RP3002707 5' |
| 13206 | 25787 | | 1.64 | 2.0E-05 | AI200970.1 | EST_HUMAN | qf68g11.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1755236 3' |
| 2759 | 16071 | 28983 | 1.86 | 1.0E-05 | AL163282.2 | NT | Homo sapiens chromosome 21 segment HS21C082 |
| 3740 | 16901 | 29905 | 1.71 | 1.0E-05 | AF088273.1 | NT | Drosophila melanogaster strain Lamto 120 Suppressor of Hairless (Su(H)) gene, partial cds |
| 3915 | 17074 | | 0.97 | 1.0E-05 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 4074 | 17230 | 30236 | 11.86 | 1.0E-05 | P81274 | SWISSPROT | MOSAIC PROTEIN LGN |
| 4288 | 17433 | 30420 | 1.45 | 1.0E-05 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 4392 | 17535 | 30514 | 2.14 | 1.0E-05 | AA431119.1 | EST_HUMAN | zw69g04.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:781494 5' |
| 4976 | 18104 | 31080 | 2.24 | 1.0E-05 | AW419134.1 | EST_HUMAN | xy49g11.x1 NCI_CGAP_Lu34.1 Homo sapiens cDNA clone IMAGE:2856548 3' |
| 5079 | 18207 | 31179 | 0.86 | 1.0E-05 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 5084 | 18212 | 31185 | 0.64 | 1.0E-05 | Z18943.1 | NT | H.sapiens repeat region |
| 6891 | 20043 | 33451 | 1.13 | 1.0E-05 | AJ246003.1 | NT | Homo sapiens Spast gene for spastin protein |
| 7230 | 20135 | 33553 | 4.24 | 1.0E-05 | AA641846.1 | EST_HUMAN | ns19g02.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1184114 3' similar to contains L1.t1 L1 L1 repetitive element ; |
| 7232 | 20316 | 33759 | 5.19 | 1.0E-05 | 4505844 | NT | Homo sapiens phospholipase A2, group X (PLA2G10) mRNA, and translated products |
| 7837 | 20892 | 34394 | 0.73 | 1.0E-05 | BF222646.1 | EST_HUMAN | 7p57d01.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:3649945 3' similar to contains MER10.b3 MER10 repetitive element ; |
| 7956 | 21006 | | 2.03 | 1.0E-05 | P19474 | SWISSPROT | 52 KD RO PROTEIN (SJOGREN SYNDROME TYPE A ANTIGEN (SS-A)) (RO(SS-A)) |
| 9116 | 22195 | | 2.39 | 1.0E-05 | AL163227.2 | NT | Homo sapiens chromosome 21 segment HS21C027 |
| 9260 | 22337 | 35887 | 2.59 | 1.0E-05 | AA452578.1 | EST_HUMAN | zx35h12.s1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:788519 3' similar to gb:L02932 PEROXISOME PROLIFERATOR ACTIVATED RECEPTOR ALPHA (HUMAN); |
| 9487 | 22544 | 36107 | 12.29 | 1.0E-05 | AA236110.1 | EST_HUMAN | zs05e11.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:684332 5' similar to contains Alu repetitive element;contains element TAR1 repetitive element ; |
| 9566 | 22708 | 36275 | 0.81 | 1.0E-05 | AV732190.1 | EST_HUMAN | AV732190 HTF Homo sapiens cDNA clone HTFBIH01 5' |
| 10043 | 23081 | 36682 | 0.79 | 1.0E-05 | AW510902.1 | EST_HUMAN | hd41b02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2912043 3' similar to contains OFR.t1 OFR repetitive element ; |
| 10043 | 23081 | 36683 | 0.79 | 1.0E-05 | AW510902.1 | EST_HUMAN | hd41b02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2912043 3' similar to contains OFR.t1 OFR repetitive element ; |
| 10120 | 23158 | 36756 | 1.18 | 1.0E-05 | AW291521.1 | EST_HUMAN | UI-H-BI2-agk-a-08-0-UI.s1 NCI_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2724398 3' |
| 10120 | 23158 | 36757 | 1.18 | 1.0E-05 | AW291521.1 | EST_HUMAN | UI-H-BI2-agk-a-08-0-UI.s1 NCI_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2724398 3' |
| 10387 | 23422 | | 2.04 | 1.0E-05 | AW466995.1 | EST_HUMAN | he07c10.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2873010 3' similar to contains L1.t2 L1 repetitive element ; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11159 | 24230 | 37860 | 2.22 | 1.0E-05 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, RoRet gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| 11159 | 24230 | 37861 | 2.22 | 1.0E-05 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, RoRet gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| 13023 | 26096 | 31663 | 1.4 | 1.0E-05 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 2737 | 15854 | 28968 | 5.83 | 9.0E-06 | AI583811.1 | EST_HUMAN | tt73a06.x1 NCI_CGAP_HSC3 Homo sapiens cDNA clone IMAGE:2246386 3' |
| 3165 | 16340 | 29348 | 6.11 | 9.0E-06 | AI218983.1 | EST_HUMAN | qg11b08.x1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:1759191 3' |
| 3698 | 16859 |  | 2.56 | 9.0E-06 | M61755.1 | NT | Human alanine:glyoxylate aminotransferase (AGXT) gene, exons 1 and 2 |
| 6025 | 19208 | 32528 | 2.48 | 9.0E-06 | L23416.1 | NT | Homo sapiens differentiation antigen CD20 gene, exons 5, 6 |
| 7003 | 20139 | 33557 | 0.82 | 9.0E-06 | BE065042.1 | EST_HUMAN | RC1-BT0313-110500-017-e07 BT0313 Homo sapiens cDNA |
| 7598 | 20668 | 34144 | 2.82 | 9.0E-06 | P08547 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 7953 | 21003 | 34515 | 12.35 | 9.0E-06 | AI034370.1 | EST_HUMAN | ox20g01.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1656912 3' similar to contains Alu repetitive element; |
| 8659 | 21739 | 35280 | 1.17 | 9.0E-06 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 9183 | 22261 | 35803 | 3.3 | 9.0E-06 | Q63769 | SWISSPROT | SUSHI REPEAT-CONTAINING PROTEIN SRPX PRECURSOR (DRS PROTEIN) (DOWN-REGULATED BY V-SRC) |
| 9183 | 22261 | 35804 | 3.3 | 9.0E-06 | Q63769 | SWISSPROT | SUSHI REPEAT-CONTAINING PROTEIN SRPX PRECURSOR (DRS PROTEIN) (DOWN-REGULATED BY V-SRC) |
| 9423 | 22497 | 36063 | 4.43 | 9.0E-06 | U35114.1 | NT | Human apolipoprotein E (APOE) gene, hepatic control region HCR-2 |
| 11180 | 24249 | 37883 | 3.61 | 9.0E-06 | Q10364 | SWISSPROT | PUTATIVE SERINE/THREONINE-PROTEIN KINASE C22E12.14C |
| 2596 | 16065 | 28839 | 2.01 | 8.0E-06 | AW362539.1 | EST_HUMAN | RC3-CT0283-201199-011-h11 CT0283 Homo sapiens cDNA |
| 6728 | 19884 | 33276 | 2.75 | 8.0E-06 | AA284847.1 | EST_HUMAN | zt22d05.s1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:713865 3' similar to contains MER9.t1 MER9 repetitive element ; |
| 10751 | 23784 | 37397 | 0.93 | 8.0E-06 | P34083 | SWISSPROT | FASCICLIN II, PHOSPHATIDYLINOSITOL-LINKED ISOFORM PRECURSOR (FAS II) |
| 10751 | 23784 | 37398 | 0.93 | 8.0E-06 | P34083 | SWISSPROT | FASCICLIN II, PHOSPHATIDYLINOSITOL-LINKED ISOFORM PRECURSOR (FAS II) |
| 1002 | 14173 |  | 1.73 | 7.0E-06 | AA669729.1 | EST_HUMAN | ab90f10.s1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:854251 3' similar to contains MER20.t1 MER20 repetitive element ; |
| 1470 | 14624 | 27708 | 3.12 | 7.0E-06 | 7662177 | NT | Homo sapiens KIAA0555 gene product (KIAA0555), mRNA |
| 2936 | 16113 |  | 10.58 | 7.0E-06 | AI368252.1 | EST_HUMAN | qw18g09.x1 NCI_CGAP_Ut3 Homo sapiens cDNA clone IMAGE:1991296 3' similar to contains Alu repetitive element; |
| 3654 | 16817 |  | 0.85 | 7.0E-06 | AA385542.1 | EST_HUMAN | EST99205 Thyroid Homo sapiens cDNA 5' end similar to EST containing L1 repeat |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5813 | 19003 | | 5.49 | 7.0E-06 | AW883141.1 | EST_HUMAN | QV2-OT0062-250400-173-h01 OT0062 Homo sapiens cDNA |
| 5925 | 19112 | 32424 | 0.93 | 7.0E-06 | N98645.1 | EST_HUMAN | yy65c07.r1 Soares_multiple_sclerosis_2NbHMSP Homo sapiens cDNA clone IMAGE:278412 5' |
| 8989 | 22068 | 35608 | 0.83 | 7.0E-06 | 11420709 | NT | Homo sapiens DNA segment, numerous copies, expressed probes (GS1 gene) (DXF68S1E), mRNA |
| 10104 | 23142 | | 0.52 | 7.0E-06 | Q61147 | SWISSPROT | CERULOPLASMIN PRECURSOR (FERROXIDASE) |
| 12202 | 26131 | 31547 | 1.68 | 7.0E-06 | BF215972.1 | EST_HUMAN | 601881522F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4093972 5' |
| 2984 | 16160 | 29177 | 1.17 | 6.0E-06 | BE069189.1 | EST_HUMAN | QV3-BT0379-010300-105-d11 BT0379 Homo sapiens cDNA |
| 3784 | 16945 | 29952 | 1.02 | 6.0E-06 | BE069189.1 | EST_HUMAN | QV3-BT0379-010300-105-d11 BT0379 Homo sapiens cDNA |
| 4876 | 16183 | 29206 | 2.13 | 6.0E-06 | Q01456 | SWISSPROT | OVARIAN ABUNDANT MESSAGE PROTEIN (OAM PROTEIN) |
| 4883 | 18013 | 30997 | .2.19 | 6.0E-06 | AI040099.1 | EST_HUMAN | ox08e02.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1655738 3' similar to contains MER8.t2 MER8 repetitive element ; |
| 5465 | 18665 | 31644 | 2.29 | 6.0E-06 | AF167441.1 | NT | Mus musculus E-cadherin binding protein E7 mRNA, complete cds |
| 5525 | 18722 | 31739 | 1.16 | 6.0E-06 | Q02040 | SWISSPROT | PROTEIN XE7 |
| 10060 | 23098 | | 1.96 | 6.0E-06 | AW801912.1 | EST_HUMAN | IL5-UM0070-110400-063-g02 UM0070 Homo sapiens cDNA |
| 13142 | 25742 | 31948 | 2.39 | 6.0E-06 | 11418157 | NT | Homo sapiens calcium channel, voltage-dependent, alpha 1I subunit (CACNA1I), mRNA |
| 6186 | 19362 | 32710 | 3.74 | 6.0E-06 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 6467 | 19634 | 32995 | 1.94 | 5.0E-06 | U07561.1 | NT | Human ABL gene, exon 1b and intron 1b, and putative M8604 Met protein (M8604 Met) gene, complete cds |
| 7382 | 20460 | 33923 | 1.18 | 5.0E-06 | AB007546.1 | NT | Homo sapiens gene for LECT2, complete cds |
| 8654 | 21734 | 35274 | 0.58 | 5.0E-06 | AW856972.1 | EST_HUMAN | RC1-CT0302-120200-013-h02 CT0302 Homo sapiens cDNA |
| 8654 | 21734 | 35275 | 0.58 | 5.0E-06 | AW856972.1 | EST_HUMAN | RC1-CT0302-120200-013-h02 CT0302 Homo sapiens cDNA |
| 10307 | 23342 | 36947 | 6.96 | 5.0E-06 | AA313620.1 | EST_HUMAN | EST185496 Colon carcinoma (HCC) cell line Homo sapiens cDNA 5' end |
| 10731 | 23764 | 37372 | 0.61 | 5.0E-06 | P06681 | SWISSPROT | COMPLEMENT C2 PRECURSOR (C3/C5 CONVERTASE) |
| 13011 | 25666 | 31957 | 5.49 | 5.0E-06 | AI065045.1 | EST_HUMAN | HA0877 Human fetal liver cDNA library Homo sapiens cDNA |
| 664 | 13850 | 26877 | 5.47 | 4.0E-06 | R16267.1 | EST_HUMAN | ya48c03.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:53254 5' similar to contains Alu repetitive element;contains L1 repetitive element ; |
| 869 | 14045 | 27110 | 4.73 | 4.0E-06 | AW103354.1 | EST_HUMAN | xc69g12.x1 NCI_CGAP_Eso2 Homo sapiens cDNA clone IMAGE:2589574 3' similar to contains Alu repetitive element;contains element MER21 repetitive element ; |
| 1365 | 14519 | 27593 | 3.18 | 4.0E-06 | AI334928.1 | EST_HUMAN | tb33e09.x1 NCI_CGAP_HSC2 Homo sapiens cDNA clone IMAGE:2056168 3' |
| 1365 | 14519 | 27594 | 3.18 | 4.0E-06 | AI334928.1 | EST_HUMAN | tb33e09.x1 NCI_CGAP_HSC2 Homo sapiens cDNA clone IMAGE:2056168 3' |
| 1503 | 14656 | 27738 | 1.45 | 4.0E-06 | BF365612.1 | EST_HUMAN | QV2-NT0046-200600-250-h07 NT0046 Homo sapiens cDNA |
| 2339 | 15470 | 28605 | 1.56 | 4.0E-06 | AW015401.1 | EST_HUMAN | UI-H-BI0-aat-f-05-0-UI.s1 NCI_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2710425 3' |
| 3131 | 16307 | 29321 | 0.89 | 4.0E-06 | AF198349.1 | NT | Gallus gallus Dach2 protein (Dach2) mRNA, complete cds |
| 4000 | 17157 | 30163 | 0.99 | 4.0E-06 | AW848295.1 | EST_HUMAN | IL3-CT0214-150200-074-B03 CT0214 Homo sapiens cDNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4929 | 18059 | 31041 | 1.89 | 4.0E-06 | AI886939.1 | EST_HUMAN | wi94c10.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2432562 3' similar to contains element MER22 repetitive element ; |
| 8696 | 21776 | 35308 | 0.68 | 4.0E-06 | O15393 | SWISSPROT | TRANSMEMBRANE PROTEASE, SERINE 2 |
| 9000 | 22079 | 35620 | 4.49 | 4.0E-06 | AF009660.1 | NT | Homo sapiens T cell receptor beta locus, TCRBV7S3A2 to TCRBV12S2 region |
| 9909 | 22949 | 36535 | 1.28 | 4.0E-06 | AJ272265.1 | NT | Homo sapiens SPP2 gene for secreted phosphoprotein 24 precursor, exons 1-8 |
| 11735 | 23921 | 37546 | 3.99 | 4.0E-06 | AB007955.1 | NT | Homo sapiens mRNA, chromosome 1 specific transcript KIAA0486 |
| 13149 | 26152 |  | 1.33 | 4.0E-06 | AW299734.1 | EST_HUMAN | xs53e01.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2773368 3' |
| 2232 | 15366 | 28494 | 1.31 | 3.0E-06 | AA700562.1 | EST_HUMAN | zi34b08.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:432663 3' similar to contains L1.t1 L1 repetitive element ; |
| 2232 | 15366 | 28495 | 1.31 | 3.0E-06 | AA700562.1 | EST_HUMAN | zi34b08.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:432663 3' similar to contains L1.t1 L1 repetitive element ; |
| 2340 | 15471 |  | 1.48 | 3.0E-06 | AF202635.1 | NT | Homo sapiens PP1200 mRNA, complete cds |
| 2988 | 16164 | 29180 | 0.84 | 3.0E-06 | AA868218.1 | EST_HUMAN | ak48g11.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1409252 3' similar to contains LTR1.t3 LTR1 repetitive element ; |
| 3339 | 16512 |  | 2.67 | 3.0E-06 | AI857779.1 | EST_HUMAN | wi22a05.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2425616 3' similar to TR:O60734 O60734 LINE-1 LIKE PROTEIN ;contains L1.t2 L1 repetitive element ; |
| 3883 | 17042 | 30040 | 1.47 | 3.0E-06 | BE047094.1 | EST_HUMAN | hq64d12.x1 NCI_CGAP_HN13 Homo sapiens cDNA clone IMAGE:3124151 3' |
| 3883 | 17042 | 30041 | 1.47 | 3.0E-06 | BE047094.1 | EST_HUMAN | hq64d12.x1 NCI_CGAP_HN13 Homo sapiens cDNA clone IMAGE:3124151 3' |
| 4597 | 17734 | 30714 | 0.8 | 3.0E-06 | T50266.1 | EST_HUMAN | yb78b10.r1 Stratagene ovary (#937217) Homo sapiens cDNA clone IMAGE:77275 5' similar to contains L1 repetitive element |
| 4684 | 17819 | 30807 | 5.52 | 3.0E-06 | X54816.1 | NT | Homo sapiens gene for alpha-1-microglobulin-bikunin, exons 1-5 (encoding alpha-1-microglobulin, N-terminus.) |
| 6289 | 19462 | 32814 | 0.82 | 3.0E-06 | AU159412.1 | EST_HUMAN | AU159412 THYRO1 Homo sapiens cDNA clone THYRO1001602 3' |
| 7377 | 20456 |  | 2.14 | 3.0E-06 | P08548 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 8274 | 21356 | 34874 | 0.81 | 3.0E-06 | BE562964.1 | EST_HUMAN | 601336213F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3690314 5' |
| 8883 | 21962 | 35496 | 0.76 | 3.0E-06 | P07743 | SWISSPROT | PAROTID SECRETORY PROTEIN PRECURSOR (PSP) |
| 12656 | 25435 |  | 12.07 | 3.0E-06 | AW385262.1 | EST_HUMAN | RC0-LT0001-261199-011-A03 LT0001 Homo sapiens cDNA |
| 207 | 13430 |  | 2.22 | 2.0E-06 | P54366 | SWISSPROT | HOMEOBOX PROTEIN GOOSECOID |
| 1599 | 14752 |  | 6.39 | 2.0E-06 | P21414 | SWISSPROT | POL POLYPROTEIN [CONTAINS: PROTEASE ; REVERSE TRANSCRIPTASE ; ENDONUCLEASE] |
| 2451 | 15579 | 28707 | 2.58 | 2.0E-06 | AI672138.1 | EST_HUMAN | wa04e03.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2297068 3' similar to contains MER30.b1 MER30 repetitive element ; |
| 2537 | 15662 | 28785 | 1.69 | 2.0E-06 | P04929 | SWISSPROT | HISTIDINE-RICH GLYCOPROTEIN PRECURSOR |
| 2632 | 15755 | 28870 | 1.81 | 2.0E-06 | P06719 | SWISSPROT | KNOB-ASSOCIATED HISTIDINE-RICH PROTEIN PRECURSOR (KAHRP) |
| 3607 | 16771 | 29786 | 0.9 | 2.0E-06 | AV657555.1 | EST_HUMAN | AV657555 GLC Homo sapiens cDNA clone GLCFDB05 3' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3858 | 17018 | 30017 | 1.54 | 2.0E-06 | AA173518.1 | EST_HUMAN | zp02e05.r1 Stratagene ovarian cancer (#937219) Homo sapiens cDNA clone IMAGE:595232 5' |
| 3868 | 17027 | 30026 | 0.68 | 2.0E-06 | AW450215.1 | EST_HUMAN | UI-H-BI3-aky-g-05-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2736176 3' |
| 3876 | 17035 | 30033 | 1.7 | 2.0E-06 | AB030896.1 | NT | Mus musculus gene for odorant receptor A16, complete cds |
| 6214 | 19389 |  | 0.92 | 2.0E-06 | AA974932.1 | EST_HUMAN | on34h01.s1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1558609 3' similar to contains Alu repetitive element; |
| 6246 | 19420 | 32766 | 0.62 | 2.0E-06 | AI539448.1 | EST_HUMAN | te51f05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2090241 3' similar to TR:Q13537 Q13537 MER37 TRANSPOSABLE ELEMENT, COMPLETE CONSENSUS SEQUENCE. ; |
| 6571 | 19733 | 33112 | 5.64 | 2.0E-06 | AI819424.1 | EST_HUMAN | wj90b04.x1 NCI_CGAP_Lym12 Homo sapiens cDNA clone IMAGE:2410063 3' |
| 7635 | 20704 | 34183 | 0.63 | 2.0E-06 | AA688423.1 | EST_HUMAN | nv59c06.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1234090 3' similar to contains L1.t3 L1 repetitive element ; |
| 8102 | 21184 |  | 1.02 | 2.0E-06 | AW869223.1 | EST_HUMAN | MR3-SN0067-120400-002-f02 SN0067 Homo sapiens cDNA |
| 8281 | 21363 | 34882 | 0.76 | 2.0E-06 | T12238.1 | EST_HUMAN | A447R Heart Homo sapiens cDNA clone A447 |
| 9036 | 22115 |  | 1.05 | 2.0E-06 | AA772497.1 | EST_HUMAN | zh27c11.s1 Soares_pineal_gland_N3HPG Homo sapiens cDNA clone IMAGE:413300 3' similar to TR:P70467 P70467 REVERSE TRANSCRIPTASE ; |
| 9049 | 22128 | 35672 | 1.59 | 2.0E-06 | H62051.1 | EST_HUMAN | yu37c04.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:235974 5' similar to gb:X74929 KERATIN, TYPE II CYTOSKELETAL 8 (HUMAN); |
| 9417 | 22491 | 36056 | 0.9 | 2.0E-06 | AF003529.1 | NT | Homo sapiens glypican 3 (GPC3) gene, partial cds and flanking repeat regions |
| 9417 | 22491 | 36057 | 0.9 | 2.0E-06 | AF003529.1 | NT | Homo sapiens glypican 3 (GPC3) gene, partial cds and flanking repeat regions |
| 9436 | 22510 |  | 0.46 | 2.0E-06 | AI473450.1 | EST_HUMAN | tj16g10.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2141730 3' |
| 9902 | 22942 | 36527 | 0.86 | 2.0E-06 | N30576.1 | EST_HUMAN | yw66e03.s1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:257212 3' |
| 10123 | 23161 |  | 0.7 | 2.0E-06 | AV748969.1 | EST_HUMAN | AV748969 NPC Homo sapiens cDNA clone NPCAXD05 5' |
| 12548 | 26135 | 31549 | 1.34 | 2.0E-06 | P23249 | SWISSPROT | PROTEIN MOV-10 |
| 12711 | 25473 |  | 5.94 | 2.0E-06 | BE328232.1 | EST_HUMAN | hs92f02.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3144699 3' similar to contains L1.t2 L1 repetitive element ; |
| 34 | 13272 | 26276 | 1.16 | 1.0E-06 | O76082 | SWISSPROT | ORGANIC CATION/CARNITINE TRANSPORTER 2 (SOLUTE CARRIER FAMILY 22, MEMBER 5) (HIGH-AFFINITY SODIUM-DEPENDENT CARNITINE COTRANSPORTER) |
| 674 | 13860 | 26891 | 1.8 | 1.0E-06 | AF084364.1 | NT | Mus musculus D6MM5E protein (D6Mm5e) mRNA, complete cds |
| 1482 | 14635 | 27719 | 1.8 | 1.0E-06 | P09125 | SWISSPROT | MEROZOITE SURFACE PROTEIN CMZ-8 |
| 1553 | 14706 | 27786 | 1 | 1.0E-06 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 1603 | 14756 | 27837 | 1.19 | 1.0E-06 | AA034141.1 | EST_HUMAN | zi06a12.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:429982 3' similar to contains Alu repetitive element; |
| 1603 | 14756 | 27838 | 1.19 | 1.0E-06 | AA034141.1 | EST_HUMAN | zi06a12.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:429982 3' similar to contains Alu repetitive element; |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1615 | 14768 | | 0.99 | 1.0E-06 | P27625 | SWISSPROT | DNA-DIRECTED RNA POLYMERASE III LARGEST SUBUNIT |
| 2050 | 15191 | 28303 | 4.49 | 1.0E-06 | AF184614.1 | NT | Homo sapiens p47-phox (NCF1) gene, complete cds |
| 2050 | 15191 | 28304 | 4.49 | 1.0E-06 | AF184614.1 | NT | Homo sapiens p47-phox (NCF1) gene, complete cds |
| 4489 | 17629 | 30610 | 15.97 | 1.0E-06 | U07561.1 | NT | Human ABL gene, exon 1b and intron 1b, and putative M8604 Met protein (M8604 Met) gene, complete cds |
| 5215 | 18336 | 31308 | 1.18 | 1.0E-06 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 5215 | 18336 | 31309 | 1.18 | 1.0E-06 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 5342 | 18455 | 31422 | 0.72 | 1.0E-06 | N65946.1 | EST_HUMAN | za27e08.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:293750 3' |
| 5405 | 18607 | 31579 | 5.14 | 1.0E-06 | BF333015.1 | EST_HUMAN | MR1-BT0800-030700-002-c06 BT0800 Homo sapiens cDNA |
| 5430 | 18630 | 31607 | 0.94 | 1.0E-06 | BE834518.1 | EST_HUMAN | MR3-FN0004-090600-001-e04 FN0004 Homo sapiens cDNA |
| 5430 | 18630 | 31608 | 0.94 | 1.0E-06 | BE834518.1 | EST_HUMAN | MR3-FN0004-090600-001-e04 FN0004 Homo sapiens cDNA |
| 5592 | 18787 | 31834 | 1.04 | 1.0E-06 | O60613 | SWISSPROT | 15 KDA SELENOPROTEIN PRECURSOR |
| 5915 | 19103 | | 0.72 | 1.0E-06 | BE063527.1 | EST_HUMAN | CM0-BT0281-031199-087-h04 BT0281 Homo sapiens cDNA |
| 7012 | 20148 | 33569 | 7.53 | 1.0E-06 | P02671 | SWISSPROT | FIBRINOGEN ALPHA/ALPHA-E CHAIN PRECURSOR |
| 7923 | 26223 | | 0.73 | 1.0E-06 | BE185330.1 | EST_HUMAN | IL6-HT0730-020500-074-g01 HT0730 Homo sapiens cDNA |
| 8190 | 21272 | | 0.99 | 1.0E-06 | AA912623.1 | EST_HUMAN | ol29c08.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1524878 3' |
| 8468 | 21549 | 35079 | 1.12 | 1.0E-06 | AI347010.1 | EST_HUMAN | qp54e02.x1 NCI_CGAP_Co8 Homo sapiens cDNA clone IMAGE:1926842 3' |
| 8685 | 21765 | 35297 | 1.31 | 1.0E-06 | AI287878.1 | EST_HUMAN | qv23f06.x1 NCI_CGAP_Lym6 Homo sapiens cDNA clone IMAGE:1982435 3' similar to contains element MIR repetitive element ; |
| 9504 | 22770 | 36341 | 0.91 | 1.0E-06 | N74635.1 | EST_HUMAN | za55e01.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:296472 3' |
| 9579 | 22721 | 36291 | 0.61 | 1.0E-06 | Q39575 | SWISSPROT | DYNEIN GAMMA CHAIN, FLAGELLAR OUTER ARM |
| 9884 | 22924 | 36507 | 3.47 | 1.0E-06 | U82668.1 | NT | Homo sapiens shox gene, alternatively spliced products, complete cds |
| 9884 | 22924 | 36508 | 3.47 | 1.0E-06 | U82668.1 | NT | Homo sapiens shox gene, alternatively spliced products, complete cds |
| 9929 | 22969 | 36558 | 5.22 | 1.0E-06 | AA132611.1 | EST_HUMAN | zo17e08.r1 Stratagene colon (#937204) Homo sapiens cDNA clone IMAGE:587174 5' |
| 9991 | 23030 | | 3.55 | 1.0E-06 | AA449257.1 | EST_HUMAN | zx04d11.s1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:785493 3' similar to gb:D26129 RIBONUCLEASE PANCREATIC PRECURSOR (HUMAN); |
| 10705 | 23738 | | 2.19 | 1.0E-06 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 11949 | 24935 | | 3.1 | 1.0E-06 | AW890941.1 | EST_HUMAN | RC4-NT0054-120500-012-b03 NT0054 Homo sapiens cDNA |
| 12589 | 25396 | 32041 | 8.24 | 1.0E-06 | L78810.1 | NT | Homo sapiens ADP/ATP carrier protein (ANT-2) gene, complete cds |
| 371 | 13580 | 26613 | 1.95 | 9.0E-07 | AF003529.1 | NT | Homo sapiens glypican 3 (GPC3) gene, partial cds and flanking repeat regions |
| 371 | 13580 | 26614 | 1.95 | 9.0E-07 | AF003529.1 | NT | Homo sapiens glypican 3 (GPC3) gene, partial cds and flanking repeat regions |
| 8602 | 21683 | | 0.69 | 9.0E-07 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 11525 | 24581 | 38257 | 1.83 | 9.0E-07 | AL163281.2 | NT | Homo sapiens chromosome 21 segment HS21C081 |
| 4893 | 18023 | 31008 | 4.23 | 8.0E-07 | AI288696.1 | EST_HUMAN | ql82g07.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1878876 3' |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4893 | 18023 | 31009 | 4.23 | 8.0E-07 | AI288596.1 | EST_HUMAN | ql82g07.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1878876 3' |
| 6007 | 19192 | | 8.17 | 8.0E-07 | P21414 | SWISSPROT | POL POLYPROTEIN [CONTAINS: PROTEASE ; REVERSE TRANSCRIPTASE ; ENDONUCLEASE] |
| 8191 | 21273 | | 8.44 | 8.0E-07 | AF135416.1 | NT | Homo sapiens UDP-glucuronosyltransferase gene, complete cds |
| 11921 | 24907 | | 5.84 | 8.0E-07 | T07770.1 | EST_HUMAN | EST05660 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBEN89 |
| 12183 | 25143 | | 6.1 | 8.0E-07 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 1914 | 15057 | 28167 | 0.97 | 7.0E-07 | AF167341.1 | NT | Homo sapiens membrane interleukin 1 receptor accessory protein (IL1RAP) gene, exons 10 and 11 |
| 5636 | 18830 | 31906 | 0.86 | 7.0E-07 | 6005700 | NT | Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 8 (ABCA8), mRNA |
| 5636 | 18830 | 31907 | 0.86 | 7.0E-07 | 6005700 | NT | Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 8 (ABCA8), mRNA |
| 1962 | 15105 | 28206 | 3.47 | 6.0E-07 | AW855558.1 | EST_HUMAN | CM3-CT0277-221099-024-e11 CT0277 Homo sapiens cDNA |
| 2561 | 15686 | 28812 | 2.43 | 6.0E-07 | AF019413.1 | NT | Homo sapiens HLA class III region containing tenascin X (tenascin-X) gene, partial cds; cytochrome P450 21-hydroxylase (CYP21B), complement component C4 (C4B) G11, helicase (SKI2W), RD, complement factor B (Bf), and complement component C2 (C2) genes,> |
| 4080 | 17236 | | 1.74 | 6.0E-07 | P41479 | SWISSPROT | HYPOTHETICAL 24.1 KD PROTEIN IN LEF4-P33 INTERGENIC REGION |
| 9342 | 22418 | 35972 | 1.31 | 6.0E-07 | BF001867.1 | EST_HUMAN | 7g94f07.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:3314149 3' similar to TR:O75920 O75920 4F5L. ; |
| 12115 | 25095 | 38800 | 1.45 | 6.0E-07 | BE063509.1 | EST_HUMAN | CM0-BT0281-031199-087-a03 BT0281 Homo sapiens cDNA |
| 12444 | 26087 | | 1.72 | 6.0E-07 | AW903222.1 | EST_HUMAN | CM4-NN1029-250300-121-h12 NN1029 Homo sapiens cDNA |
| 13229 | 25992 | | 1.32 | 6.0E-07 | BE222390.1 | EST_HUMAN | hu11h05.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3166329 3' similar to contains L1.b2 L1 L1 repetitive element ; |
| 336 | 13649 | | 1.04 | 5.0E-07 | AI831893.1 | EST_HUMAN | wh64f10.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2385547 3' |
| 1082 | 14248 | | 2.39 | 5.0E-07 | AA380630.1 | EST_HUMAN | EST93615 Supt cells Homo sapiens cDNA 5' end |
| 3096 | 16272 | | 0.73 | 5.0E-07 | AI831893.1 | EST_HUMAN | wh64f10.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2385547 3' |
| 4769 | 17904 | 30886 | 0.97 | 5.0E-07 | AF149774.1 | NT | Homo sapiens NOD1 protein (NOD1) gene, exons 4 through 14 and complete cds |
| 6247 | 19421 | 32767 | 1.33 | 5.0E-07 | U65067.1 | NT | Mus musculus OG-2 homeodomain protein (OG-2) gene, partial cds |
| 7210 | 20075 | 33487 | 1.71 | 5.0E-07 | AI393981.1 | EST_HUMAN | tg06b05.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2107953 3' similar to contains Alu repetitive element;contains element A3R repetitive element ; |
| 7210 | 20075 | 33488 | 1.71 | 5.0E-07 | AI393981.1 | EST_HUMAN | tg06b05.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2107953 3' similar to contains Alu repetitive element;contains element A3R repetitive element ; |
| 7503 | 20578 | 34050 | 16.93 | 5.0E-07 | AW070885.1 | EST_HUMAN | xa31a02.x1 NCI_CGAP_Br18 Homo sapiens cDNA clone IMAGE:2568362 3' similar to gb:X15341 CYTOCHROME C OXIDASE POLYPEPTIDE VIA-LIVER (HUMAN); |
| 8470 | 21551 | 35081 | 1.02 | 5.0E-07 | Q9WUQ1 | SWISSPROT | ADAM-TS 1 PRECURSOR (A DISINTEGRIN AND METALLOPROTEINASE WITH THROMBOSPONDIN MOTIFS 1) (ADAMTS-1) (ADAM-TS1) |
| 8687 | 21767 | | 0.88 | 5.0E-07 | P09593 | SWISSPROT | S-ANTIGEN PROTEIN PRECURSOR |

### Table 4
### Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10577 | 23612 | 37217 | 5.47 | 5.0E-07 | AI908587.1 | EST_HUMAN | CM-BT178-220499-014 BT178 Homo sapiens cDNA |
| 11805 | 24795 | 38493 | 5.69 | 5.0E-07 | P11087 | SWISSPROT | COLLAGEN ALPHA 1(I) CHAIN PRECURSOR |
| 11880 | 24868 | | 2.08 | 5.0E-07 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 12256 | 25968 | | 1.2 | 5.0E-07 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 12918 | 26966 | | 3.06 | 5.0E-07 | AW862537.1 | EST_HUMAN | QV0-CT0383-210400-204-b12 CT0383 Homo sapiens cDNA |
| 4106 | 17260 | 30261 | 1.66 | 4.0E-07 | AW009602.1 | EST_HUMAN | ws84h05.x1 NCI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:2504697 3' |
| 7328 | 20410 | | 0.8 | 4.0E-07 | AJ272265.1 | NT | Homo sapiens SPP2 gene for secreted phosphoprotein 24 precursor, exons 1-8 |
| 7417 | 20495 | 33963 | 0.97 | 4.0E-07 | Q9Z2V6 | SWISSPROT | HISTONE DEACETYLASE 5 (HD5) (HISTONE DEACETYLASE MHDA1) |
| 7417 | 20495 | 33964 | 0.97 | 4.0E-07 | Q9Z2V6 | SWISSPROT | HISTONE DEACETYLASE 5 (HD5) (HISTONE DEACETYLASE MHDA1) |
| 8107 | 21189 | 34709 | 0.51 | 4.0E-07 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 9251 | 22328 | 35875 | 4.9 | 4.0E-07 | AW419134.1 | EST_HUMAN | xy49g11.x1 NCI_CGAP_Lu34.1 Homo sapiens cDNA clone IMAGE:2856548 3' |
| 10332 | 23367 | 36976 | 0.63 | 4.0E-07 | BE901975.1 | EST_HUMAN | 601676748F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3959651 5' |
| 10332 | 23367 | 36977 | 0.53 | 4.0E-07 | BE901976.1 | EST_HUMAN | 601676748F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3959651 5' |
| 10531 | 23566 | 37174 | 0.56 | 4.0E-07 | AL163218.2 | NT | Homo sapiens chromosome 21 segment HS21C018 |
| 11179 | 24248 | 37881 | 3.88 | 4.0E-07 | AI765528.1 | EST_HUMAN | wi81b08.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2399703 3' |
| 11179 | 24248 | 37882 | 3.88 | 4.0E-07 | AI765528.1 | EST_HUMAN | wi81b08.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2399703 3' |
| 11495 | 24553 | | 1.69 | 4.0E-07 | BE001828.1 | EST_HUMAN | PM1-BN0083-030300-003-e12 BN0083 Homo sapiens cDNA |
| 11919 | 24906 | | 1.32 | 4.0E-07 | BE967557.1 | EST_HUMAN | 601649083F1 NIH_MGC_73 Homo sapiens cDNA clone IMAGE:3932924 5' |
| 13207 | 25788 | | 1.71 | 4.0E-07 | 11437071 | NT | Homo sapiens deleted in lymphocytic leukemia, 1 (DLEU1), mRNA |
| 454 | 13650 | 26686 | 5.38 | 3.0E-07 | U19719.1 | NT | Human microfibril-associated glycoprotein (MFAP2) gene, putative promoter region and alternatively spliced untranslated exons |
| 596 | 13786 | 26806 | 3.59 | 3.0E-07 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 1405 | 14559 | 27633 | 1.43 | 3.0E-07 | M99149.1 | NT | Human polymorphic microsatellite DNA |
| 1655 | 14808 | | 3.62 | 3.0E-07 | M64857.1 | NT | Human IgK subgroup I germline gene, exons 1 and 2, V-region 018 allele |
| 2104 | 15243 | | 2.32 | 3.0E-07 | AA526763.1 | EST_HUMAN | ni56b09.s1 NCI_CGAP_Ov2 Homo sapiens cDNA clone IMAGE:980825 similar to contains Alu repetitive element;contains L1.t3 L1 repetitive element ; |
| 2361 | 15492 | 28621 | 1.14 | 3.0E-07 | M99149.1 | NT | Human polymorphic microsatellite DNA |
| 2540 | 15665 | 28789 | 4.99 | 3.0E-07 | BE005077.1 | EST_HUMAN | MR0-BN0115-020300-001-f11 BN0115 Homo sapiens cDNA |
| 2540 | 15665 | 28790 | 4.99 | 3.0E-07 | BE005077.1 | EST_HUMAN | MR0-BN0115-020300-001-f11 BN0115 Homo sapiens cDNA |
| 3099 | 16275 | 29289 | 0.97 | 3.0E-07 | T84704.1 | EST_HUMAN | yd50f12.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:111695 5' |
| 3228 | 16402 | 29414 | 1.78 | 3.0E-07 | P38739 | SWISSPROT | HYPOTHETICAL 63.8 KD PROTEIN IN GUT1-RIM1 INTERGENIC REGION PRECURSOR |
| 4802 | 17937 | | 0.64 | 3.0E-07 | P20740 | SWISSPROT | OVOSTATIN PRECURSOR (OVOMACROGLOBULIN) |
| 4849 | 17982 | 30970 | 8.04 | 3.0E-07 | AV650201.1 | EST_HUMAN | AV650201 GLC Homo sapiens cDNA clone GLCCCD01 3' |
| 4885 | 18015 | 30999 | 0.7 | 3.0E-07 | AI797236.1 | EST_HUMAN | we86b12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2347967 3' |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5175 | 18297 | 31259 | 1.43 | 3.0E-07 | T57850.1 | EST_HUMAN | yc14h09.s1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:80705 3' similar to similar to gb:M62982 ARACHIDONATE 12-LIPOXYGENASE (HUMAN) |
| 5175 | 18297 | 31260 | 1.43 | 3.0E-07 | T57850.1 | EST_HUMAN | yc14h09.s1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:80705 3' similar to similar to gb:M62982 ARACHIDONATE 12-LIPOXYGENASE (HUMAN) |
| 5783 | 18975 | 32281 | 12.39 | 3.0E-07 | O88807 | SWISSPROT | PROTEIN-ARGININE DEIMINASE TYPE IV (PEPTIDYLARGININE DEIMINASE IV) (PAD-R4) (PEPTIDYLARGININE DEIMINASE TYPE ALPHA) |
| 6095 | 19276 | 32605 | 0.7 | 3.0E-07 | O42280 | SWISSPROT | WNT-14 PROTEIN PRECURSOR |
| 6842 | 19996 |  | 5.09 | 3.0E-07 | AA815175.1 | EST_HUMAN | oc04c10.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1339890 3' |
| 7678 | 20743 | 34224 | 3.53 | 3.0E-07 | AW797168.1 | EST_HUMAN | QV1-UM0036-200300-115-g02 UM0036 Homo sapiens cDNA |
| 7841 | 20896 |  | 1.3 | 3.0E-07 | AI591065.1 | EST_HUMAN | tw28f11.x1 NCI_CGAP_Ov35 Homo sapiens cDNA clone IMAGE:2261037 3' similar to contains Alu repetitive element;contains element MSR1 MSR1 repetitive element ; |
| 9330 | 22406 | 35959 | 0.48 | 3.0E-07 | P33240 | SWISSPROT | CLEAVAGE STIMULATION FACTOR, 64 KD SUBUNIT (CSTF 64 KD SUBUNIT) (CF-1 64 KD SUBUNIT) |
| 9330 | 22406 | 35960 | 0.48 | 3.0E-07 | P33240 | SWISSPROT | CLEAVAGE STIMULATION FACTOR, 64 KD SUBUNIT (CSTF 64 KD SUBUNIT) (CF-1 64 KD SUBUNIT) |
| 13194 | 25777 |  | 4.26 | 3.0E-07 | AJ132352.1 | NT | Rattus norvegicus mRNA for 45 kDa secretory protein, partial |
| 29 | 13267 | 26270 | 7.32 | 2.0E-07 | AF262988.1 | NT | Homo sapiens TRF2-interacting telomeric RAP1 protein (RAP1) mRNA, complete cds |
| 158 | 13383 | 26413 | 6.06 | 2.0E-07 | L77569.1 | NT | Homo sapiens DiGeorge syndrome critical region, telomeric end |
| 158 | 13383 | 26414 | 6.06 | 2.0E-07 | L77569.1 | NT | Homo sapiens DiGeorge syndrome critical region, telomeric end |
| 186 | 13408 | 26437 | 35.88 | 2.0E-07 | U38849.1 | NT | Fugu rubripes beta-cytoplasmic(vascular) actin gene, complete cds |
| 767 | 13948 | 26995 | 1.48 | 2.0E-07 | AF003530.1 | NT | Homo sapiens homeobox protein CDX4 (CDX4) gene, complete cds and flanking repeat regions |
| 767 | 13948 | 26996 | 1.48 | 2.0E-07 | AF003530.1 | NT | Homo sapiens homeobox protein CDX4 (CDX4) gene, complete cds and flanking repeat regions |
| 779 | 13959 |  | 1.36 | 2.0E-07 | P11369 | SWISSPROT | RETROVIRUS-RELATED POL POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; ENDONUCLEASE] |
| 966 | 14139 | 27200 | 2.32 | 2.0E-07 | AA223260.1 | EST_HUMAN | zr08b07.s1 Stratagene NT2 neuronal precursor 937230 Homo sapiens cDNA clone IMAGE:650869 3' similar to gb:L31860 GLYCOPHORIN A PRECURSOR (HUMAN);contains Alu repetitive element; |
| 967 | 14140 | 27201 | 2.02 | 2.0E-07 | T63042.1 | EST_HUMAN | yo15g04.s1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:80790 3' similar to contains L1 repetitive element ; |
| 1189 | 14351 | 27409 | 1.55 | 2.0E-07 | Q26768 | SWISSPROT | I/6 AUTOANTIGEN |
| 1630 | 14782 | 27868 | 2.06 | 2.0E-07 | Q09701 | SWISSPROT | HYPOTHETICAL 72.5 KD PROTEIN C2F7.10 IN CHROMOSOME I |
| 3708 | 16869 |  | 0.63 | 2.0E-07 | BF131397.1 | EST_HUMAN | 601818916F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4044891 5' |
| 3779 | 16940 | 29946 | 21.71 | 2.0E-07 | AF125348.1 | NT | Homo sapiens caveolin 1 (CAV1) gene, exon 3 and partial cds |
| 5238 | 18360 |  | 0.6 | 2.0E-07 | AW902219.1 | EST_HUMAN | QV3-NN1023-260400-168-h11 NN1023 Homo sapiens cDNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5460 | 18660 | 31638 | 1.52 | 2.0E-07 | AW898066.1 | EST_HUMAN | RC3-NN0066-260400-021-g11 NN0066 Homo sapiens cDNA |
| 6681 | 25829 | 33229 | 0.73 | 2.0E-07 | AW448968.1 | EST_HUMAN | UI-H-BI3-ake-b-01-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2734008 3' |
| 6802 | 19957 | 33357 | 3.39 | 2.0E-07 | AI208715.1 | EST_HUMAN | qg56d05.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1839177 3' |
| 8564 | 21744 | | 3.87 | 2.0E-07 | AV729390.1 | EST_HUMAN | AV729390 HTC Homo sapiens cDNA clone HTCAEG02 5' |
| 8893 | 21972 | 35508 | 1.11 | 2.0E-07 | AA035198.1 | EST_HUMAN | zk27g09.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:471808 3' |
| 9963 | 23002 | | 1.44 | 2.0E-07 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 10474 | 23509 | 37122 | 6.34 | 2.0E-07 | AW892507.1 | EST_HUMAN | CM4-NN0003-280300-124-e06 NN0003 Homo sapiens cDNA |
| 10706 | 23739 | 37342 | 1.01 | 2.0E-07 | P00751 | SWISSPROT | COMPLEMENT FACTOR B PRECURSOR (C3/C5 CONVERTASE) (PROPERDIN FACTOR B) (GLYCINE-RICH BETA GLYCOPROTEIN) (GBG) (PBF2) |
| 10706 | 23739 | 37343 | 1.01 | 2.0E-07 | P00751 | SWISSPROT | COMPLEMENT FACTOR B PRECURSOR (C3/C5 CONVERTASE) (PROPERDIN FACTOR B) (GLYCINE-RICH BETA GLYCOPROTEIN) (GBG) (PBF2) |
| 12138 | 25655 | | 2.96 | 2.0E-07 | BE153717.1 | EST_HUMAN | PM0-HT0339-260100-006-H07 HT0339 Homo sapiens cDNA |
| 12226 | 25967 | | 2.38 | 2.0E-07 | AI732462.1 | EST_HUMAN | zn85h11.x5 Stratagene lung carcinoma 937218 Homo sapiens cDNA clone IMAGE:565029 3' similar to contains THR.b2 THR repetitive element ; |
| 1126 | 14291 | | 0.76 | 1.0E-07 | AL163282.2 | NT | Homo sapiens chromosome 21 segment HS21C082 |
| 2888 | 14704 | 27784 | 2.08 | 1.0E-07 | P09256 | SWISSPROT | GLYCOPROTEIN GPV |
| 3838 | 14291 | | 1.24 | 1.0E-07 | AL163282.2 | NT | Homo sapiens chromosome 21 segment HS21C082 |
| 4408 | 17550 | 30534 | 2.91 | 1.0E-07 | AV718662.1 | EST_HUMAN | AV718662 GLC Homo sapiens cDNA clone GLCFNF04 5' |
| 4408 | 17550 | 30535 | 2.91 | 1.0E-07 | AV718662.1 | EST_HUMAN | AV718662 GLC Homo sapiens cDNA clone GLCFNF04 5' |
| 6632 | 19791 | 33180 | 0.8 | 1.0E-07 | U82671.2 | NT | Homo sapiens chromosome Xq28 melanoma antigen family A2a (MAGEA2A), melanoma antigen family A12 (MAGEA12), melanoma antigen family A2b (MAGEA2B), melanoma antigen family A3 (MAGEA3), caltractin (CALT), NAD(P)H dehydrogenase-like protein (NSDHL), and LI> |
| 7006 | 20142 | 33560 | 4.69 | 1.0E-07 | BE047871.1 | EST_HUMAN | tz43d06.y1 NCI_CGAP_Brn52 Homo sapiens cDNA clone IMAGE:2291339 5' |
| 7006 | 20142 | 33561 | 4.69 | 1.0E-07 | BE047871.1 | EST_HUMAN | tz43d06.y1 NCI_CGAP_Brn52 Homo sapiens cDNA clone IMAGE:2291339 5' |
| 7662 | 20728 | 34205 | 7.6 | 1.0E-07 | N55081.1 | EST_HUMAN | yv43c07.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:245484 3' |
| 7826 | 20881 | 34382 | 0.69 | 1.0E-07 | BF375909.1 | EST_HUMAN | PM4-TN0024-030800-002-b05 TN0024 Homo sapiens cDNA |
| 7826 | 20881 | 34383 | 0.69 | 1.0E-07 | BF375909.1 | EST_HUMAN | PM4-TN0024-030800-002-b05 TN0024 Homo sapiens cDNA |
| 7854 | 20909 | 34413 | 1.24 | 1.0E-07 | AL163281.2 | NT | Homo sapiens chromosome 21 segment HS21C081 |
| 8410 | 21491 | 35020 | 2.76 | 1.0E-07 | P97435 | SWISSPROT | ENTEROPEPTIDASE (ENTEROKINASE) |
| 8410 | 21491 | 35021 | 2.76 | 1.0E-07 | P97435 | SWISSPROT | ENTEROPEPTIDASE (ENTEROKINASE) |
| 9155 | 22233 | 35778 | 2.7 | 1.0E-07 | AA693576.1 | EST_HUMAN | zl51e10.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:434346 3' |
| 9470 | 22527 | 36090 | 1.05 | 1.0E-07 | P57110 | SWISSPROT | ADAM-TS 8 PRECURSOR (A DISINTEGRIN AND METALLOPROTEINASE WITH THROMBOSPONDIN MOTIFS 8) (ADAMTS-8) (ADAM-TS8) (METH-2) |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9816 | 22856 | 36436 | 0.6 | 1.0E-07 | BE327843.1 | EST_HUMAN | hu28h06.x1 NCI_CGAP_Mel15 Homo sapiens cDNA clone IMAGE:3171419 3' similar to contains MER18.t3 MER18 repetitive element ; |
| 10140 | 23178 | 36776 | 2.35 | 1.0E-07 | BF674524.1 | EST_HUMAN | 602137714F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4274426 5' |
| 10149 | 23187 | 36784 | 1.23 | 1.0E-07 | AA386311.1 | EST_HUMAN | EST185054 Brain IV Homo sapiens cDNA |
| 10682 | 23716 | | 1.22 | 1.0E-07 | AL163282.2 | NT | Homo sapiens chromosome 21 segment HS21C082 |
| 12085 | 25065 | 38771 | 2.35 | 1.0E-07 | AI341136.1 | EST_HUMAN | qx89e03.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2009692 3' |
| 12506 | 25939 | 31761 | 3.37 | 1.0E-07 | BE048770.1 | EST_HUMAN | hr53c11.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3132212 3' similar to TR:O95722 O95722 DJ1163J1.1 ; |
| 12659 | 25438 | | 1.45 | 1.0E-07 | X64467.1 | NT | H.sapiens ALAD gene for porphobilinogen synthase |
| 12852 | 25566 | | 2.1 | 1.0E-07 | X51755.1 | NT | Human lambda-immunoglobulin constant region complex (germline) |
| 7433 | 20510 | 33982 | 0.75 | 9.0E-08 | AI539362.1 | EST_HUMAN | te51b06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2090195 3' |
| 10091 | 23129 | 36732 | 2.04 | 9.0E-08 | AV734819.1 | EST_HUMAN | AV734819 cdA Homo sapiens cDNA clone cdABFB06 5' |
| 11457 | 24517 | 38185 | 1.92 | 9.0E-08 | AI891052.1 | EST_HUMAN | wn30a07.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2446932 3' similar to contains OFR.t2 OFR repetitive element ; |
| 11965 | 24950 | 38656 | 2.38 | 9.0E-08 | AL163301.2 | NT | Homo sapiens chromosome 21 segment HS21C101 |
| 12456 | 25320 | | 2.51 | 9.0E-08 | AJ251973.1 | NT | Homo sapiens partial steerin-1 gene |
| 622 | 16017 | | 2.09 | 8.0E-08 | AI911352.1 | EST_HUMAN | wd16b05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2328273 3' |
| 1075 | 14241 | | 1.01 | 8.0E-08 | BE795469.1 | EST_HUMAN | 601590133F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943976 5' |
| 3634 | 16798 | | 1.57 | 8.0E-08 | BE795469.1 | EST_HUMAN | 601590133F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943976 5' |
| 8937 | 22016 | 35557 | 5.35 | 8.0E-08 | AI752367.1 | EST_HUMAN | cn15c02.x1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn15c02 random |
| 8937 | 22016 | 35558 | 5.35 | 8.0E-08 | AI752367.1 | EST_HUMAN | cn15c02.x1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn15c02 random |
| 9827 | 22867 | 36449 | 3.03 | 8.0E-08 | AW970693.1 | EST_HUMAN | EST382776 MAGE resequences, MAGK Homo sapiens cDNA |
| 10788 | 23821 | 37445 | 0.48 | 8.0E-08 | AF111167.2 | NT | Homo sapiens jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene |
| 11523 | 24579 | | 1.73 | 8.0E-08 | AF253417.1 | NT | Homo sapiens microsomal epoxide hydrolase (EPHX1) gene, complete cds |
| 82 | 13317 | 26345 | 3.91 | 7.0E-08 | Q02357 | SWISSPROT | ANKYRIN 1 (ERYTHROCYTE ANKYRIN) |
| 1392 | 14546 | 27622 | 19.51 | 7.0E-08 | X04809.1 | NT | Rat mRNA for ribosomal protein L31 |
| 3666 | 16829 | 29839 | 0.88 | 7.0E-08 | P15305 | SWISSPROT | DYNEIN HEAVY CHAIN (DYHC) |
| 3666 | 16829 | 29840 | 0.88 | 7.0E-08 | P15305 | SWISSPROT | DYNEIN HEAVY CHAIN (DYHC) |
| 5332 | 18445 | 31413 | 0.62 | 7.0E-08 | T65891.1 | EST_HUMAN | yc11e12.r1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:80398 5' |
| 11052 | 24129 | | 1.73 | 7.0E-08 | AI535743.1 | EST_HUMAN | cong3.P11.A5 conorm Homo sapiens cDNA 3' |
| 11970 | 24955 | 38658 | 4.1 | 7.0E-08 | U24070.1 | NT | Rattus norvegicus Munc13-1 mRNA, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 12978 | 16829 | 29839 | 1.84 | 7.0E-08 | P15305 | SWISSPROT | DYNEIN HEAVY CHAIN (DYHC) |
| 12978 | 16829 | 29840 | 1.84 | 7.0E-08 | P15305 | SWISSPROT | DYNEIN HEAVY CHAIN (DYHC) |
| 840 | 14018 | 27073 | 3.3 | 6.0E-08 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 840 | 14018 | 27074 | 3.3 | 6.0E-08 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 2436 | 15564 | 28693 | 1.77 | 6.0E-08 | BE144398.1 | EST_HUMAN | MR0-HT0166-191199-004-g09 HT0166 Homo sapiens cDNA |
| 3129 | 16305 | 29319 | 0.68 | 6.0E-08 | 7662473 | NT | Homo sapiens KIAA1074 protein (KIAA1074), mRNA |
| 4363 | 17506 | 30487 | 1.15 | 6.0E-08 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 8137 | 21219 | | 0.59 | 6.0E-08 | P08547 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 9529 | 22594 | | 0.55 | 6.0E-08 | AA827075.1 | EST_HUMAN | ob56c05.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1335368 3' similar to contains MER12.b3 MER12 repetitive element ; |
| 11701 | 24698 | 38390 | 2.16 | 6.0E-08 | P11369 | SWISSPROT | RETROVIRUS-RELATED POL POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; ENDONUCLEASE] |
| 11823 | 24812 | | 1.43 | 6.0E-08 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 87 | 13322 | 26350 | 2.17 | 5.0E-08 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 2309 | 15441 | 28576 | 3.93 | 5.0E-08 | AA493851.1 | EST_HUMAN | nh03b09.s1 NCI_CGAP_Thy1 Homo sapiens cDNA clone IMAGE:943193 similar to contains Alu repetitive element; |
| 12185 | 25144 | | 4.55 | 5.0E-08 | P06681 | SWISSPROT | COMPLEMENT C2 PRECURSOR (C3/C5 CONVERTASE) |
| 12382 | 25271 | 32077 | 1.77 | 5.0E-08 | AW851878.1 | EST_HUMAN | QV0-CT0225-131099-034-a12 CT0225 Homo sapiens cDNA |
| 1799 | 14948 | 28040 | 1.03 | 4.0E-08 | P25723 | SWISSPROT | DORSAL-VENTRAL PATTERNING TOLLOID PROTEIN PRECURSOR |
| 1799 | 14948 | 28041 | 1.03 | 4.0E-08 | P25723 | SWISSPROT | DORSAL-VENTRAL PATTERNING TOLLOID PROTEIN PRECURSOR |
| 2950 | 16127 | | 1.06 | 4.0E-08 | AL079581.1 | EST_HUMAN | DKFZp434J0426_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434J0426 5' |
| 3132 | 16308 | | 1.01 | 4.0E-08 | AI078417.1 | EST_HUMAN | oz05e02.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1674458 3' similar to contains Alu repetitive element; |
| 4024 | 17180 | 30189 | 0.65 | 4.0E-08 | U82668.1 | NT | Homo sapiens shox gene, alternatively spliced products, complete cds |
| 6535 | 19698 | 33071 | 1.07 | 4.0E-08 | P52624 | SWISSPROT | URIDINE PHOSPHORYLASE (UDRPASE) |
| 8998 | 22077 | 35617 | 0.9 | 4.0E-08 | O15393 | SWISSPROT | TRANSMEMBRANE PROTEASE, SERINE 2 |
| 9340 | 22416 | 35969 | 1.13 | 4.0E-08 | L42571.1 | NT | Cricetulus griseus ribosomal transcription factor (UBF2) mRNA, complete cds |
| 9845 | 22885 | | 1.56 | 4.0E-08 | P08547 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 10536 | 23571 | | 0.85 | 4.0E-08 | AI016342.1 | EST_HUMAN | ot78d12.s1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1622903 3' |
| 10597 | 23632 | 37241 | 4.75 | 4.0E-08 | AI050027.1 | EST_HUMAN | en22d10.x1 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:1699411 3' similar to contains Alu repetitive element;contains element MER22 repetitive element ; |
| 11328 | 24391 | 38037 | 5.16 | 4.0E-08 | AA393627.1 | EST_HUMAN | zt76b08.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:728247 5' similar to TR:G505579 G505579 NA/CA,K-EXCHANGER. ; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11328 | 24391 | 38038 | 5.16 | 4.0E-08 | AA393627.1 | EST_HUMAN | zt76b08.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:728247 5' similar to TR:G505579 G505579 NA/CA,K-EXCHANGER. ; |
| 11349 | 24411 | 38064 | 11.86 | 4.0E-08 | BF692493.1 | EST_HUMAN | 602248024F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4333300 5' |
| 11349 | 24411 | 38065 | 11.86 | 4.0E-08 | BF692493.1 | EST_HUMAN | 602248024F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4333300 5' |
| 12190 | 26108 | | 1.93 | 4.0E-08 | W76159.1 | EST_HUMAN | zd65g03.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:345556 5' similar to contains L1.t1 L1 repetitive element ; |
| 12904 | 26598 | | 2.01 | 4.0E-08 | AI343353.1 | EST_HUMAN | tb95a11.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:2062076 3' similar to contains MER18.b3 MER18 MER18 repetitive element ; |
| 5728 | 18921 | 32215 | 2.27 | 3.0E-08 | BE018348.1 | EST_HUMAN | bb79a10.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3048570 5' similar to TR:Q9Z158 Q9Z158 SYNTAXIN 17. ; |
| 7115 | 18541 | 31498 | 6.01 | 3.0E-08 | AI792737.1 | EST_HUMAN | qs76f11.y5 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:1944045 5' |
| 7711 | 20776 | 34262 | 1.43 | 3.0E-08 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 7928 | 20978 | | 3.32 | 3.0E-08 | AI436352.1 | EST_HUMAN | th93h09.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2126273 3' similar to TR:Q13537 Q13537 MER37 TRANSPOSABLE ELEMENT, COMPLETE CONSENSUS SEQUENCE. ; |
| 10102 | 23140 | | 0.63 | 3.0E-08 | AF055066.1 | NT | Homo sapiens MHC class 1 region |
| 11276 | 24343 | 37983 | 1.64 | 3.0E-08 | AI218001.1 | EST_HUMAN | qh21a04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1845294 3' |
| 11957 | 24942 | 38646 | 1.32 | 3.0E-08 | AF111167.2 | NT | Homo sapiens jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene |
| 12156 | 25125 | | 33.85 | 3.0E-08 | R18420.1 | EST_HUMAN | yg02f04.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:30948 5' similar to contains Alu repetitive element; |
| 211 | 13434 | | 4.16 | 2.0E-08 | AW302996.1 | EST_HUMAN | xr87f06.x1 NCI_CGAP_Lu26 Homo sapiens cDNA clone IMAGE:2767139 3' |
| 236 | 13458 | | 5.76 | 2.0E-08 | AA425598.1 | EST_HUMAN | zw48f07.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:773317 5' similar to contains Alu repetitive element;contains element MER16 repetitive element ; |
| 509 | 13703 | 26732 | 4.46 | 2.0E-08 | AF198349.1 | NT | Gallus gallus Dach2 protein (Dach2) mRNA, complete cds |
| 677 | 13863 | 26893 | 9.7 | 2.0E-08 | AW886438.1 | EST_HUMAN | MR0-OT0080-240200-001-g08 OT0080 Homo sapiens cDNA |
| 677 | 13863 | 26894 | 9.7 | 2.0E-08 | AW886438.1 | EST_HUMAN | MR0-OT0080-240200-001-g08 OT0080 Homo sapiens cDNA |
| 1014 | 14186 | | 7.75 | 2.0E-08 | BE280477.1 | EST_HUMAN | 601155321F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3138893 5' |
| 1373 | 14528 | 27602 | 1.46 | 2.0E-08 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 1774 | 14923 | 28017 | 0.98 | 2.0E-08 | AW841890.1 | EST_HUMAN | IL5-CN0024-030300-026-C01 CN0024 Homo sapiens cDNA |
| 1780 | 14929 | | 2.08 | 2.0E-08 | BE734871.1 | EST_HUMAN | 601570463F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3845199 5' |
| 1902 | 15045 | | 6.7 | 2.0E-08 | AW270271.1 | EST_HUMAN | xp43f11.x1 NCI_CGAP_HN11 Homo sapiens cDNA clone IMAGE:2743149 3' |
| 2608 | 15732 | | 1.86 | 2.0E-08 | K00216.1 | NT | Sheep His-tRNA-GUG |
| 3279 | 16453 | 29474 | 5.61 | 2.0E-08 | O42280 | SWISSPROT | WNT-14 PROTEIN PRECURSOR |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3279 | 16453 | 29475 | 5.61 | 2.0E-08 | O42280 | SWISSPROT | WNT-14 PROTEIN PRECURSOR |
| 3962 | 17120 | | 1.63 | 2.0E-08 | AW813620.1 | EST_HUMAN | RC3-ST0197-161099-012-b03 ST0197 Homo sapiens cDNA |
| 4189 | 17339 | 30332 | 0.62 | 2.0E-08 | U82668.1 | NT | Homo sapiens shox gene, alternatively spliced products, complete cds |
| 4525 | 17664 | | 1.48 | 2.0E-08 | AA459040.1 | EST_HUMAN | aa26c07.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:814380 5' similar to contains L1.t2 L1 repetitive element ; |
| 5072 | 18200 | | 3.5 | 2.0E-08 | AW572881.1 | EST_HUMAN | he17h08.x2 NCI_CGAP_CML1 Homo sapiens cDNA clone IMAGE:2919327 3' similar to contains Alu repetitive element; |
| 5763 | 18945 | 32247 | 0.85 | 2.0E-08 | AA813204.1 | EST_HUMAN | ai80h11.s1 Soares_testis_NHT Homo sapiens cDNA clone 1377189 3' |
| 5955 | 19141 | 32457 | 1 | 2.0E-08 | AW088924.1 | EST_HUMAN | xd32c04.x1 NCI_CGAP_Ov23 Homo sapiens cDNA clone IMAGE:2595462 3' similar to contains MER18.b3 MER18 MER18 repetitive element ; |
| 8193 | 21275 | 34798 | 1.11 | 2.0E-08 | P10272 | SWISSPROT | POL POLYPROTEIN [CONTAINS: PROTEASE ; REVERSE TRANSCRIPTASE ; ENDONUCLEASE] |
| 8301 | 21383 | 34904 | 1.5 | 2.0E-08 | AA490121.1 | EST_HUMAN | ab02g06.s1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:839674 3' |
| 9286 | 22362 | | 0.89 | 2.0E-08 | AU139978.1 | EST_HUMAN | AU139978 PLACE1 Homo sapiens cDNA clone PLACE1011719 5' |
| 10738 | 23771 | 37381 | 0.83 | 2.0E-08 | N78097.1 | EST_HUMAN | yw72f02.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:248283 5' similar to contains LTR1.b3 LTR1 repetitive element ; |
| 10738 | 23771 | 37382 | 0.83 | 2.0E-08 | N78097.1 | EST_HUMAN | yw72f02.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:248283 5' similar to contains LTR1.b3 LTR1 repetitive element ; |
| 12476 | 25329 | | 1.77 | 2.0E-08 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 13065 | 26159 | | 1.8 | 2.0E-08 | 11431676 | NT | Homo sapiens hypothetical protein FLJ11342 (FLJ11342), mRNA |
| 1639 | 16041 | 27770 | 1.05 | 1.0E-08 | P31792 | SWISSPROT | POL POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; ENDONUCLEASE] |
| 1672 | 14824 | 27907 | 1.33 | 1.0E-08 | P13002 | SWISSPROT | PROTEIN GRAINY-HEAD (DNA-BINDING PROTEIN ELF-1) (ELEMENT I-BINDING ACTIVITY) (TRANSCRIPTION FACTOR NTF-1) |
| 1672 | 14824 | 27908 | 1.33 | 1.0E-08 | P13002 | SWISSPROT | PROTEIN GRAINY-HEAD (DNA-BINDING PROTEIN ELF-1) (ELEMENT I-BINDING ACTIVITY) (TRANSCRIPTION FACTOR NTF-1) |
| 1816 | 14965 | 28058 | 1.66 | 1.0E-08 | AF125348.1 | NT | Homo sapiens caveolin 1 (CAV1) gene, exon 3 and partial cds |
| 2110 | 15248 | | 2.97 | 1.0E-08 | BE141959.1 | EST_HUMAN | PM2-HT0130-150999-001-f12 HT0130 Homo sapiens cDNA |
| 3261 | 16435 | 29453 | 0.95 | 1.0E-08 | BE246844.1 | EST_HUMAN | TCBAP1D5232 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP5232 |
| 3261 | 16435 | 29454 | 0.95 | 1.0E-08 | BE246844.1 | EST_HUMAN | TCBAP1D5232 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP5232 |
| 5716 | 18909 | 32204 | 4.51 | 1.0E-08 | AJ010770.1 | NT | Homo sapiens hyperion gene, exons 1-50 |
| 7946 | 20998 | 34507 | 0.94 | 1.0E-08 | P19474 | SWISSPROT | 52 KD RO PROTEIN (SJOGREN SYNDROME TYPE A ANTIGEN (SS-A)) (RO(SS-A)) |
| 8224 | 21306 | 34826 | 0.62 | 1.0E-08 | AL163302.2 | NT | Homo sapiens chromosome 21 segment HS21C102 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8320 | 21402 | 34927 | 0.54 | 1.0E-08 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 8320 | 21402 | 34928 | 0.54 | 1.0E-08 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 8744 | 21823 | 35359 | 2.27 | 1.0E-08 | AI016304.1 | EST_HUMAN | ot35a05.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1618736 3' |
| 9405 | 22479 | | 0.56 | 1.0E-08 | P09593 | SWISSPROT | S-ANTIGEN PROTEIN PRECURSOR |
| 9406 | 22480 | 36043 | 0.85 | 1.0E-08 | BE072572.1 | EST_HUMAN | PM2-BT0546-210100-004-d02 BT0546 Homo sapiens cDNA |
| 10171 | 23208 | 36801 | 0.84 | 1.0E-08 | P79110 | SWISSPROT | TRICARBOXYLATE TRANSPORT PROTEIN PRECURSOR (CITRATE TRANSPORT PROTEIN) (CTP) (TRICARBOXYLATE CARRIER PROTEIN) |
| 10778 | 23811 | 37434 | 0.87 | 1.0E-08 | P98063 | SWISSPROT | BONE MORPHOGENETIC PROTEIN 1 PRECURSOR (BMP-1) |
| 11595 | 24648 | 38332 | 3.55 | 1.0E-08 | AF044083.1 | NT | Homo sapiens major histocompatibility locus class III region |
| 12581 | 25391 | | 3.06 | 1.0E-08 | X51755.1 | NT | Human lambda-immunoglobulin constant region complex (germline) |
| 13137 | 25925 | | 1.26 | 1.0E-08 | BF375398.1 | EST_HUMAN | MR4-ST0240-240700-013-g04 ST0240 Homo sapiens cDNA |
| 4357 | 17500 | 30481 | 4.17 | 9.0E-09 | AL163279.2 | NT | Homo sapiens chromosome 21 segment HS21C079 |
| 4357 | 17500 | 30482 | 4.17 | 9.0E-09 | AL163279.2 | NT | Homo sapiens chromosome 21 segment HS21C079 |
| 10267 | 23302 | | 0.63 | 9.0E-09 | T97950.1 | EST_HUMAN | ye58a12.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:121918 3' |
| 7414 | 20492 | 33960 | 8.1 | 8.0E-09 | AI183500.1 | EST_HUMAN | qd42e07.x1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:1732164 3' similar to contains MSR1.t1 MSR1 repetitive element ; |
| 8189 | 21271 | 34796 | 2.54 | 8.0E-09 | AW900159.1 | EST_HUMAN | CM0-NN1004-100300-273-e06 NN1004 Homo sapiens cDNA |
| 9189 | 22267 | | 2.53 | 8.0E-09 | AA938892.1 | EST_HUMAN | op74d08.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1582575 3' |
| 3695 | 16856 | | 1.98 | 7.0E-09 | D86842.1 | NT | Homo sapiens DNA for 3-ketoacyl-CoA thiolase beta-subunit of mitochondrial trifunctional protein, exon 2, 3 |
| 4115 | 17269 | | 0.98 | 7.0E-09 | U50871.1 | NT | Human familial Alzheimer's disease (STM2) gene, complete cds |
| 8086 | 21168 | | 0.58 | 7.0E-09 | BF108755.1 | EST_HUMAN | 7l45e10.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3524443 3' similar to contains MER29.b2 MER29 repetitive element ; |
| 8237 | 21319 | | 0.99 | 7.0E-09 | AA256200.1 | EST_HUMAN | zr80c05.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:681992 5' similar to contains L1.t2 L1 repetitive element ; |
| 9460 | 22517 | 36080 | 2.86 | 7.0E-09 | L09709.1 | NT | Human lysosomal membrane glycoprotein-2 (LAMP2) gene, 5' end and flanking region |
| 10386 | 23421 | 37028 | 1.95 | 7.0E-09 | BE254850.1 | EST_HUMAN | 601111173F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3351834 5' |
| 10554 | 23589 | | 0.76 | 7.0E-09 | AA058626.1 | EST_HUMAN | zf58e07.s1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:381156 3' similar to contains L1.t2 L1 repetitive element ; |
| 10910 | 23993 | | 2.01 | 7.0E-09 | T97950.1 | EST_HUMAN | ye58a12.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:121918 3' |
| 2221 | 15355 | | 0.95 | 6.0E-09 | AL040439.1 | EST_HUMAN | DKFZp434C0514_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434C0514 5' |
| 6095 | 18223 | 31195 | 6.2 | 6.0E-09 | BE169421.1 | EST_HUMAN | PM1-HT0527-160200-001-h05 HT0527 Homo sapiens cDNA |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5496 | 18695 | 31711 | 9.33 | 6.0E-09 | AW195784.1 | EST_HUMAN | xn85h08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2701311 3' |
| 8775 | 21854 | 35396 | 1.11 | 6.0E-09 | BE161653.1 | EST_HUMAN | MR3-HT0446-260300-201-h12 HT0446 Homo sapiens cDNA |
| 9377 | 22452 | 36014 | 2.18 | 6.0E-09 | 4503710 | NT | Homo sapiens fibroblast growth factor receptor 3 (achondroplasia, thanatophoric dwarfism) (FGFR3) mRNA |
| 10483 | 23518 | | 3.4 | 6.0E-09 | AF200923.2 | NT | Homo sapiens testis-specific kinase substrate (TSKS) gene, complete cds |
| 10969 | 24049 | 37682 | 1.66 | 6.0E-09 | BF108755.1 | EST_HUMAN | 7l45e10.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3524443 3' similar to contains MER29.b2 MER29 repetitive element ; |
| 12089 | 25069 | 38776 | 1.37 | 6.0E-09 | C01803.1 | EST_HUMAN | HUMGS0003762 Human adult (K.Okubo) Homo sapiens cDNA |
| 1447 | 14600 | 27677 | 3.47 | 5.0E-09 | BE149264.1 | EST_HUMAN | RC2-HT0252-120200-014-h10 HT0252 Homo sapiens cDNA |
| 1900 | 15043 | 28154 | 7.4 | 5.0E-09 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 6540 | 19703 | 33075 | 2.22 | 5.0E-09 | AA359454.1 | EST_HUMAN | EST68746 Fetal lung II Homo sapiens cDNA 5' end |
| 6988 | 18507 | 31523 | 0.66 | 5.0E-09 | U66059.1 | NT | Human germline T-cell receptor beta chain Dopamine-beta-hydroxylase-like, TRY1, TRY2, TRY3, TCRBV27S1P, TCRBV22S1A2N1T, TCRBV9S1A1T, TCRBV7S1A1N2T, TCRBV5S1A1T, TCRBV13S3, TCRBV6S7P, TCRBV7S3A2T, TCRBV13S2A1T, TCRBV9S2A2PT, TCRBV7S2A1N4T, TCRBV13S9/13S> |
| 8785 | 21864 | 35407 | 0.63 | 6.0E-09 | P37071 | SWISSPROT | OLFACTORY RECEPTOR-LIKE PROTEIN COR5 |
| 10300 | 23335 | 36940 | 3.25 | 5.0E-09 | AW799667.1 | EST_HUMAN | PM2-UM0053-240300-005-c09 UM0053 Homo sapiens cDNA |
| 11944 | 24930 | 38632 | 1.87 | 6.0E-09 | AA460142.1 | EST_HUMAN | zx60e09.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:795880 3' |
| 534 | 13727 | | 1.64 | 4.0E-09 | AL163282.2 | NT | Homo sapiens chromosome 21 segment HS21C082 |
| 987 | 14159 | | 2.75 | 4.0E-09 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 1497 | 14650 | 27732 | 1.86 | 4.0E-09 | 9558718 | NT | Homo sapiens hypothetical protein (AF038169), mRNA |
| 2500 | 15627 | 28747 | 5.32 | 4.0E-09 | AA350878.1 | EST_HUMAN | EST58385 Infant brain Homo sapiens cDNA 5' end similar to similar to heat shock protein, 90 kDa |
| 8030 | 21113 | 34631 | 0.53 | 4.0E-09 | AA495747.1 | EST_HUMAN | zw04c06.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:768298 5' |
| 8719 | 21799 | 35334 | 1.02 | 4.0E-09 | T64942.1 | EST_HUMAN | yd11a07.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:66804 3' |
| 11330 | 24393 | 38041 | 9.51 | 4.0E-09 | AI886401.1 | EST_HUMAN | wm94f10.x1 NCI_CGAP_Ut2 Homo sapiens cDNA clone IMAGE:2443627 3' |
| 11379 | 24440 | | 1.44 | 4.0E-09 | AA195142.1 | EST_HUMAN | zr34a12.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:665278 5' similar to gb:L07807 DYNAMIN-1 (HUMAN); |
| 2427 | 15555 | 28682 | 4.51 | 3.0E-09 | BE222239.1 | EST_HUMAN | hu09e09.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3166120 3' similar to contains MER18.t3 MER18 repetitive element ; |
| 2619 | 15742 | 28856 | 1.06 | 3.0E-09 | BE222239.1 | EST_HUMAN | hu09e09.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3166120 3' similar to contains MER18.t3 MER18 repetitive element ; |
| 2716 | 15834 | 28944 | 0.99 | 3.0E-09 | P23249 | SWISSPROT | PROTEIN MOV-10 |
| 3408 | 16578 | 29593 | 0.9 | 3.0E-09 | BE222239.1 | EST_HUMAN | hu09e09.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3166120 3' similar to contains MER18.t3 MER18 repetitive element ; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3464 | 16631 | | 0.7 | 3.0E-09 | AA442272.1 | EST_HUMAN | zv54a04.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:757422 5' |
| 4212 | 17361 | | 0.62 | 3.0E-09 | X16674.1 | NT | H.sapiens PADPRP-I gene for NAD(+) ADP-ribosyltransferase |
| 4546 | 17684 | 30666 | 3.47 | 3.0E-09 | AF175325.1 | NT | Homo sapiens eukaryotic initiation factor 4AI (EIF4A1) gene, partial cds |
| 4634 | 17770 | 30751 | 1.19 | 3.0E-09 | Q9Y3R5 | SWISSPROT | 258.1 KDA PROTEIN C21ORF5 (KIAA0933) |
| 8084 | 21166 | 34682 | 1.1 | 3.0E-09 | BE465780.1 | EST_HUMAN | hx80a02.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3194090 3' similar to TR:O55091 O55091 IMPACT PROTEIN. ; |
| 10453 | 23488 | 37096 | 1.87 | 3.0E-09 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 10792 | 23825 | 37448 | 0.46 | 3.0E-09 | Q10940 | SWISSPROT | HYPOTHETICAL 13.1 KD PROTEIN B0310.4 IN CHROMOSOME X |
| 11272 | 24340 | 37978 | 3.15 | 3.0E-09 | BF109943.1 | EST_HUMAN | 7l72c08.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3527030 3' |
| 11272 | 24340 | 37979 | 3.15 | 3.0E-09 | BF109943.1 | EST_HUMAN | 7l72c08.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3527030 3' |
| 835 | 14013 | | 0.98 | 2.0E-09 | X16674.1 | NT | H.sapiens PADPRP-I gene for NAD(+) ADP-ribosyltransferase |
| 1287 | 14443 | 27511 | 4.7 | 2.0E-09 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 1691 | 14843 | | 10.71 | 2.0E-09 | AL118573.1 | EST_HUMAN | DKFZp761B1710_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761B1710 5' |
| 2403 | 15534 | 28661 | 2.24 | 2.0E-09 | Q9Y3R5 | SWISSPROT | 258.1 KDA PROTEIN C21ORF5 (KIAA0933) |
| 4048 | 17204 | 30214 | 3.01 | 2.0E-09 | O60241 | SWISSPROT | BRAIN-SPECIFIC ANGIOGENESIS INHIBITOR 2 PRECURSOR |
| 4119 | 17273 | 30272 | 0.9 | 2.0E-09 | AI263479.1 | EST_HUMAN | qi07d09.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1855793 3' |
| 5264 | 18383 | 31348 | 0.62 | 2.0E-09 | M23161.1 | NT | Human transposon-like element mRNA |
| 5837 | 19027 | 32333 | 0.67 | 2.0E-09 | AI004062.1 | EST_HUMAN | ot47b09.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1619897 3' |
| 6278 | 19452 | | 0.75 | 2.0E-09 | AL163249.2 | NT | Homo sapiens chromosome 21 segment HS21C049 |
| 6919 | 20234 | | 0.88 | 2.0E-09 | AA357407.1 | EST_HUMAN | EST66142 Kidney IX Homo sapiens cDNA 5' end similar to EST containing L1 repeat |
| 7609 | 20679 | 34155 | 8.81 | 2.0E-09 | AA461430.1 | EST_HUMAN | zx63h06.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:796187 5' similar to contains Alu repetitive element; |
| 7692 | 20757 | 34242 | 0.66 | 2.0E-09 | W28834.1 | EST_HUMAN | 52d11 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |
| 7971 | 21021 | 34534 | 0.59 | 2.0E-09 | AI243732.1 | EST_HUMAN | qh88g10.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1864114 3' |
| 8909 | 21988 | 35528 | 1.2 | 2.0E-09 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 10824 | 23857 | 37480 | 0.85 | 2.0E-09 | AV688642.1 | EST_HUMAN | AV688642 GKC Homo sapiens cDNA clone GKCACA11 5' |
| 12745 | 14013 | | 20.06 | 2.0E-09 | X16674.1 | NT | H.sapiens PADPRP-I gene for NAD(+) ADP-ribosyltransferase |
| 12830 | 26188 | | 1.86 | 2.0E-09 | AA226070.1 | EST_HUMAN | nc11c02.r1 NCI_CGAP_Pr1 Homo sapiens cDNA clone IMAGE:1007810 similar to contains Alu repetitive element; |
| 1019 | 14190 | | 1.19 | 1.0E-09 | W78152.1 | EST_HUMAN | zd79d03.s1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:346853 3' similar to gb:L02932 PEROXISOME PROLIFERATOR ACTIVATED RECEPTOR ALPHA (HUMAN); |
| 1133 | 14298 | 27353 | 1.43 | 1.0E-09 | 5031624 | NT | Homo sapiens CCAAT-box-binding transcription factor (CBF2) mRNA |
| 1133 | 14298 | 27354 | 1.43 | 1.0E-09 | 5031624 | NT | Homo sapiens CCAAT-box-binding transcription factor (CBF2) mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2571 | 16696 | | 1.15 | 1.0E-09 | AI356086.1 | EST_HUMAN | qy64e11.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2016812 3' similar to contains MER12.t2 MER12 repetitive element ; |
| 2954 | 16131 | 29146 | 2.02 | 1.0E-09 | U80017.1 | NT | Homo sapiens basic transcription factor 2 p44 (btf2p44) gene, partial cds, neuronal apoptosis inhibitory protein (naip) and survival motor neuron protein (smn) genes, complete cds |
| 2992 | 16168 | 29184 | 6.17 | 1.0E-09 | M28699.1 | NT | Homo sapiens nucleolar phosphoprotein B23 (NPM1) mRNA, complete cds |
| 2992 | 16168 | 29185 | 6.17 | 1.0E-09 | M28699.1 | NT | Homo sapiens nucleolar phosphoprotein B23 (NPM1) mRNA, complete cds |
| 3103 | 16279 | 29293 | 0.99 | 1.0E-09 | BE535440.1 | EST_HUMAN | 601058602F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3445177 5' |
| 4920 | 18050 | | 6.15 | 1.0E-09 | AA719297.1 | EST_HUMAN | zh35b03.s1 Soares_pineal_gland_N3HPG Homo sapiens cDNA clone IMAGE:414029 3' similar to contains Alu repetitive element;contains element MER22 repetitive element ; |
| 5341 | 18454 | | 0.6 | 1.0E-09 | AA921958.1 | EST_HUMAN | om44g12.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1543942 3' |
| 5620 | 18814 | 31882 | 0.85 | 1.0E-09 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 5952 | 19138 | 32454 | 1.29 | 1.0E-09 | U07000.1 | NT | Human breakpoint cluster region (BCR) gene, complete cds |
| 6272 | 19446 | 32794 | 3.34 | 1.0E-09 | P26694 | SWISSPROT | CIRCUMSPOROZOITE PROTEIN PRECURSOR (CS) |
| 8584 | 21665 | 35206 | 0.92 | 1.0E-09 | AI688474.1 | EST_HUMAN | wd39b05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2330481 3' similar to contains MER25.t1 MER25 repetitive element ; |
| 10520 | 23555 | | 2.72 | 1.0E-09 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 12642 | 26120 | 31668 | 1.71 | 1.0E-09 | 11418127 | NT | Homo sapiens GTP binding protein 1 (GTPBP1), mRNA |
| 12767 | 25510 | | 1.42 | 1.0E-09 | T57366.1 | EST_HUMAN | yb51g12.s1 Stratagene fetal spleen (#937205) Homo sapiens cDNA clone IMAGE:74758 3' |
| 13132 | 26020 | | 1.66 | 1.0E-09 | AF260225.1 | NT | Homo sapiens TESTIN 2 and TESTIN 3 genes, complete cds, alternatively spliced |
| 1337 | 14494 | 27564 | 1.52 | 9.0E-10 | AW867740.1 | EST_HUMAN | MR0-SN0040-050500-002-c07 SN0040 Homo sapiens cDNA |
| 2895 | 16074 | 29092 | 3.74 | 9.0E-10 | AI870071.1 | EST_HUMAN | we78h03.x1 Soares_Dieckgraefe_colon_NHCD Homo sapiens cDNA clone IMAGE:2347253 3' similar to SW:RL29_HUMAN P47914 60S RIBOSOMAL PROTEIN L29 ;contains element PTR5 repetitive element ; |
| 6973 | 20201 | 33627 | 4.98 | 9.0E-10 | AI452982.1 | EST_HUMAN | tj46b09.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2144537 3' similar to TR:O00372 O00372 PUTATIVE P150. ; |
| 151 | 13376 | 26408 | 9.26 | 8.0E-10 | U63630.2 | NT | Homo sapiens MCM4 (MCM4) and DNA-PKcs (PRKDC) genes, partial cds |
| 3423 | 16592 | 29607 | 0.65 | 8.0E-10 | BE080748.1 | EST_HUMAN | QV1-BT0631-150200-071-f01 BT0631 Homo sapiens cDNA |
| 4318 | 17461 | 30446 | 5.45 | 8.0E-10 | AA376832.1 | EST_HUMAN | EST89564 Small intestine I Homo sapiens cDNA 5' end |
| 10170 | 23207 | | 2.51 | 8.0E-10 | U36308.2 | NT | Homo sapiens lens major intrinsic protein (MIP) gene, complete cds |
| 719 | 13901 | 26941 | 21.38 | 7.0E-10 | 7706225 | NT | Homo sapiens TPA inducible protein (LOC51686), mRNA |
| 719 | 13901 | 26942 | 21.38 | 7.0E-10 | 7706225 | NT | Homo sapiens TPA inducible protein (LOC51586), mRNA |
| 1651 | 14804 | 27890 | 2.58 | 7.0E-10 | Q13342 | SWISSPROT | LYSP100 PROTEIN (LYMPHOID-RESTRICTED HOMOLOG OF SP100) |
| 2626 | 15749 | | 20.25 | 7.0E-10 | P08547 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 3157 | 16332 | 29341 | 2.25 | 7.0E-10 | X00856.1 | NT | H.sapiens DHFR gene, exon 3 |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6314 | 19486 | 32841 | 4.06 | 7.0E-10 | AA345220.1 | EST_HUMAN | EST51247 Gall bladder II Homo sapiens cDNA 5' end |
| 7574 | 20646 | 34124 | 1.37 | 7.0E-10 | BF352883.1 | EST_HUMAN | IL3-HT0619-110700-209-D12 HT0619 Homo sapiens cDNA |
| 7834 | 20889 | | 1.65 | 7.0E-10 | P35084 | SWISSPROT | DNA-DIRECTED RNA POLYMERASE II LARGEST SUBUNIT |
| 8163 | 21245 | 34764 | 1.54 | 7.0E-10 | AF029701.2 | NT | Homo sapiens presenilin-1 gene, exons 1 and 2 |
| 8163 | 21245 | 34765 | 1.54 | 7.0E-10 | AF029701.2 | NT | Homo sapiens presenilin-1 gene, exons 1 and 2 |
| 936 | 14111 | 27171 | 8.44 | 6.0E-10 | AJ400877.1 | NT | Homo sapiens ASCL3 gene, CEGP1 gene, C11orf14 gene, C11orf15 gene, C11orf16 gene and C11orf17 gene |
| 2742 | 15859 | 28971 | 1.63 | 6.0E-10 | AI424405.1 | EST_HUMAN | tf02d07.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2095021 3' |
| 4615 | 17752 | 30733 | 1.88 | 6.0E-10 | Q02817 | SWISSPROT | MUCIN 2 PRECURSOR (INTESTINAL MUCIN 2) |
| 4861 | 17994 | | 3.15 | 6.0E-10 | AW853719.1 | EST_HUMAN | RC3-CT0254-031099-012-g12 CT0254 Homo sapiens cDNA |
| 8983 | 22062 | 35602 | 0.96 | 6.0E-10 | P33730 | SWISSPROT | E-SELECTIN PRECURSOR (ENDOTHELIAL LEUKOCYTE ADHESION MOLECULE 1) (ELAM-1) (LEUKOCYTE-ENDOTHELIAL CELL ADHESION MOLECULE 2) (LECAM2) (CD62E) |
| 8983 | 22062 | 35603 | 0.96 | 6.0E-10 | P33730 | SWISSPROT | E-SELECTIN PRECURSOR (ENDOTHELIAL LEUKOCYTE ADHESION MOLECULE 1) (ELAM-1) (LEUKOCYTE-ENDOTHELIAL CELL ADHESION MOLECULE 2) (LECAM2) (CD62E) |
| 9834 | 22874 | 36458 | 0.48 | 6.0E-10 | P98073 | SWISSPROT | ENTEROPEPTIDASE PRECURSOR (ENTEROKINASE) |
| 12223 | 25172 | | 1.95 | 6.0E-10 | AW971923.1 | EST_HUMAN | EST384012 MAGE resequences, MAGL Homo sapiens cDNA |
| 780 | 13960 | | 5.29 | 5.0E-10 | AL046804.1 | EST_HUMAN | DKFZp434N219_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N219 5' |
| 3564 | 16729 | 29745 | 1.14 | 5.0E-10 | Q01033 | SWISSPROT | HYPOTHETICAL GENE 48 PROTEIN |
| 5105 | 18233 | 31202 | 1.4 | 5.0E-10 | AF181897.1 | NT | Homo sapiens WRN (WRN) gene, complete cds |
| 7475 | 20550 | | 1.85 | 5.0E-10 | BF105159.1 | EST_HUMAN | 601822184F1 NIH_MGC_75 Homo sapiens cDNA clone IMAGE:4042413 5' |
| 9736 | 22801 | 36374 | 2.24 | 5.0E-10 | P34678 | SWISSPROT | HYPOTHETICAL 67.9 KD PROTEIN ZK688.8 IN CHROMOSOME III |
| 9736 | 22801 | 36375 | 2.24 | 5.0E-10 | P34678 | SWISSPROT | HYPOTHETICAL 67.9 KD PROTEIN ZK688.8 IN CHROMOSOME III |
| 12040 | 25021 | 38725 | 1.31 | 5.0E-10 | AF091415.1 | NT | Macaca tonkeana isolate 569tonkpeona NADH dehydrogenase subunit 4L gene, complete cds; and NADH dehydrogenase subunit 4 gene, mitochondrial genes encoding mitochondrial proteins, partial cds |
| 114 | 13345 | | 1.09 | 4.0E-10 | AI221083.1 | EST_HUMAN | qg09f09.x1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:1759049 3' similar to contains LTR8.b2 LTR8 repetitive element ; |
| 2052 | 15193 | 28306 | 1.4 | 4.0E-10 | AW594709.1 | EST_HUMAN | hg58g03.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2949844 3' similar to contains Alu repetitive element; |
| 2640 | 15763 | 28877 | 6.79 | 4.0E-10 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 7327 | 20409 | 33871 | 17.76 | 4.0E-10 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 10398 | 23433 | 37039 | 0.71 | 4.0E-10 | AW293243.1 | EST_HUMAN | UI-H-BI2-ahl-a-07-0-UI.s1 NCI_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2727061 3' |
| 10662 | 23696 | 37305 | 1.12 | 4.0E-10 | AI267342.1 | EST_HUMAN | aq63h11.x1 Stanley Frontal SN pool 2 Homo sapiens cDNA clone IMAGE:2035653 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10794 | 23827 | 37450 | 0.54 | 4.0E-10 | BE169208.1 | EST_HUMAN | PM1-HT0521-120200-001-f08 HT0521 Homo sapiens cDNA |
| 10794 | 23827 | 37451 | 0.54 | 4.0E-10 | BE169208.1 | EST_HUMAN | PM1-HT0521-120200-001-f08 HT0521 Homo sapiens cDNA |
| 938 | 14112 | 27173 | 2.24 | 3.0E-10 | N36113.1 | EST_HUMAN | yy32f06.s1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:272963 3' similar to contains L1.t1 L1 repetitive element ; |
| 1382 | 14537 |  | 5.3 | 3.0E-10 | AY005150.1 | NT | Homo sapiens extracellular glycoprotein lacritin precursor, gene, complete cds |
| 4657 | 17793 | 30777 | 0.94 | 3.0E-10 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 4657 | 17793 | 30778 | 0.94 | 3.0E-10 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 5360 | 18463 | 31428 | 0.89 | 3.0E-10 | L34079.1 | NT | Human XRCC1 DNA repair gene, genomic |
| 5571 | 18767 | 31808 | 0.78 | 3.0E-10 | N50109.1 | EST_HUMAN | yz11g08.s1 Soares_multiple_sclerosis_2NbHMSP Homo sapiens cDNA clone IMAGE:282782 3' |
| 6332 | 19503 | 32861 | 2.06 | 3.0E-10 | P20350 | SWISSPROT | RHOMBOID PROTEIN (VEINLET PROTEIN) |
| 6481 | 19648 | 33010 | 3.62 | 3.0E-10 | BE302970.1 | EST_HUMAN | ba76d08.y1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2906319 5' |
| 7937 | 20987 | 34495 | 1.42 | 3.0E-10 | AV743302.1 | EST_HUMAN | AV743302 CB Homo sapiens cDNA clone CBFBGD08 5' |
| 7937 | 20987 | 34496 | 1.42 | 3.0E-10 | AV743302.1 | EST_HUMAN | AV743302 CB Homo sapiens cDNA clone CBFBGD08 5' |
| 8928 | 22007 | 35546 | 1.57 | 3.0E-10 | H87208.1 | EST_HUMAN | ys74b12.s1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:220511 3' similar to contains MER29 repetitive element ; |
| 9249 | 22326 | 35872 | 1.52 | 3.0E-10 | AW850731.1 | EST_HUMAN | IL3-CT0219-160200-064-B06 CT0219 Homo sapiens cDNA |
| 9249 | 22326 | 35873 | 1.52 | 3.0E-10 | AW850731.1 | EST_HUMAN | IL3-CT0219-160200-064-B06 CT0219 Homo sapiens cDNA |
| 9541 | 22606 |  | 0.78 | 3.0E-10 | AF020503.1 | NT | Homo sapiens FRA3B common fragile region, diadenosine triphosphate hydrolase (FHIT) gene, exon 5 |
| 10679 | 23713 |  | 1.95 | 3.0E-10 | T65891.1 | EST_HUMAN | yc11e12.r1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:80398 5' |
| 10820 | 23853 |  | 0.96 | 3.0E-10 | AA769294.1 | EST_HUMAN | nz36g03.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1289908 3' |
| 12941 | 25619 | 31977 | 1.87 | 3.0E-10 | BE179517.1 | EST_HUMAN | IL3-HT0618-110500-136-E07 HT0618 Homo sapiens cDNA |
| 36 | 13274 | 26278 | 2.08 | 2.0E-10 | P48988 | SWISSPROT | MAJOR CENTROMERE AUTOANTIGEN B (CENTROMERE PROTEIN B) (CENP-B) |
| 36 | 13274 | 26279 | 2.08 | 2.0E-10 | P48988 | SWISSPROT | MAJOR CENTROMERE AUTOANTIGEN B (CENTROMERE PROTEIN B) (CENP-B) |
| 1946 | 15089 |  | 1.66 | 2.0E-10 | U80017.1 | NT | Homo sapiens basic transcription factor 2 p44 (btf2p44) gene, partial cds, neuronal apoptosis inhibitory protein (naip) and survival motor neuron protein (smn) genes, complete cds |
| 3051 | 16227 |  | 0.84 | 2.0E-10 | BF675047.1 | EST_HUMAN | 602136640F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4273377 5' |
| 5924 | 19111 |  | 2.3 | 2.0E-10 | Q28640 | SWISSPROT | (HPRG) |
| 6380 | 19549 | 32905 | 1.56 | 2.0E-10 | AF280107.1 | NT | Homo sapiens cytochrome P450 polypeptide 43 (CYP3A43) gene, partial cds; cytochrome P450 polypeptide 4 (CYP3A4) and cytochrome P450 polypeptide 7 (CYP3A7) genes, complete cds; and cytochrome P450 polypeptide 5 (CYP3A5) gene, partial cds |
| 7537 | 20610 | 34084 | 6.41 | 2.0E-10 | BE791082.1 | EST_HUMAN | 601586208F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3940824 5' |
| 8203 | 21285 | 34807 | 0.58 | 2.0E-10 | P26809 | SWISSPROT | POL POLYPROTEIN [CONTAINS: PROTEASE ; REVERSE TRANSCRIPTASE ; RIBONUCLEASE H ] |
| 8203 | 21285 | 34808 | 0.58 | 2.0E-10 | P26809 | SWISSPROT | POL POLYPROTEIN [CONTAINS: PROTEASE ; REVERSE TRANSCRIPTASE ; RIBONUCLEASE H ] |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9502 | 22558 | | 1.06 | 2.0E-10 | BF434565.1 | EST_HUMAN | 7o78d08.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3642303 3' similar to contains L1.t3 L1 repetitive element ; |
| 11609 | 24662 | | 1.33 | 2.0E-10 | AI862153.1 | EST_HUMAN | ta10f12.x1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:2043695 3' |
| 1538 | 14691 | | 3.09 | 1.0E-10 | AW867767.1 | EST_HUMAN | MR0-SN0038-290300-001-f01 SN0038 Homo sapiens cDNA |
| 1637 | 14789 | 27874 | 3.37 | 1.0E-10 | AV652123.1 | EST_HUMAN | AV652123 GLC Homo sapiens cDNA clone GLCCXA11 3' |
| 2649 | 15772 | | 2.16 | 1.0E-10 | AW852001.1 | EST_HUMAN | QV0-CT0225-191199-058-e08 CT0225 Homo sapiens cDNA |
| 3589 | 16753 | 29768 | 0.9 | 1.0E-10 | AW832912.1 | EST_HUMAN | QV2-TT0003-161199-013-g10 TT0003 Homo sapiens cDNA |
| 3629 | 16793 | | 0.67 | 1.0E-10 | AL041685.1 | EST_HUMAN | DKFZp434N1317_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N1317 5' |
| 3947 | 16793 | | 0.76 | 1.0E-10 | AL041685.1 | EST_HUMAN | DKFZp434N1317_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N1317 5' |
| 4123 | 17277 | | 7.33 | 1.0E-10 | AF213884.1 | NT | Homo sapiens nuclear factor of kappa light polypeptide gene enhancer in B-cells 1 (NFKB1) gene, complete cds |
| 4245 | 17391 | 30378 | 16.24 | 1.0E-10 | U52111.2 | NT | Homo sapiens X28 region near ALD locus containing dual specificity phosphatase 9 (DUSP9), ribosomal protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMKI), creatine transporter (CRTR), CDM protein (CDM), adrenoleukodystrophy protein > |
| 4245 | 17391 | 30379 | 16.24 | 1.0E-10 | U52111.2 | NT | Homo sapiens X28 region near ALD locus containing dual specificity phosphatase 9 (DUSP9), ribosomal protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMKI), creatine transporter (CRTR), CDM protein (CDM), adrenoleukodystrophy protein > |
| 4253 | 17399 | 30388 | 1.76 | 1.0E-10 | AB031069.1 | NT | Homo sapiens PCCX1 mRNA for protein containing CXXC domain 1, complete cds |
| 4285 | 17430 | | 2.28 | 1.0E-10 | M30629.1 | NT | Human pregnancy-specific glycoprotein beta-1 (SP1) mRNA, last exon |
| 5277 | 18396 | | 1.01 | 1.0E-10 | AI797745.1 | EST_HUMAN | we82f04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2347615 3' similar to contains MER31.t1 MER31 repetitive element ; |
| 7644 | 20713 | | 0.58 | 1.0E-10 | P08548 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 7860 | 20914 | 34419 | 0.69 | 1.0E-10 | AU128584.1 | EST_HUMAN | AU128584 NT2RP2 Homo sapiens cDNA clone NT2RP2003751 5' |
| 8434 | 21515 | 35046 | 1.14 | 1.0E-10 | AW408990.1 | EST_HUMAN | fB_6A4 Fetal brain library Homo sapiens cDNA |
| 8855 | 21934 | | 1.62 | 1.0E-10 | AI268340.1 | EST_HUMAN | qm04e10.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1880874 3' similar to contains L1.t1 L1 repetitive element ; |
| 10406 | 23441 | | 6.24 | 1.0E-10 | AA081868.1 | EST_HUMAN | zn23g06.r1 Stratagene neuroepithelium NT2RAMI 937234 Homo sapiens cDNA clone IMAGE:548314 5' |
| 11154 | 24225 | 37854 | 3.5 | 1.0E-10 | AI038280.1 | EST_HUMAN | oy85h03.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1672661 3' |
| 12165 | 18503 | | 1.8 | 1.0E-10 | X87344.1 | NT | H.sapiens DMA, DMB, HLA-Z1, IPP2, LMP2, TAP1, LMP7, TAP2, DOB, DQB2 and RING8, 9, 13 and 14 genes |
| 272 | 13490 | 26521 | 0.87 | 9.0E-11 | BE145600.1 | EST_HUMAN | IL2-HT0203-291099-016-c08 HT0203 Homo sapiens cDNA |
| 2171 | 15306 | 28433 | 6.02 | 9.0E-11 | AL134395.1 | EST_HUMAN | DKFZp547D225_r1 547 (synonym: hfbr1) Homo sapiens cDNA clone DKFZp547D225 5' |
| 2171 | 15306 | 28434 | 6.02 | 9.0E-11 | AL134395.1 | EST_HUMAN | DKFZp547D225_r1 547 (synonym: hfbr1) Homo sapiens cDNA clone DKFZp547D225 5' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3470 | 16637 | 29657 | 2.98 | 9.0E-11 | AL134395.1 | EST_HUMAN | DKFZp547D225_r1 547 (synonym: hfbr1) Homo sapiens cDNA clone DKFZp547D226 5' |
| 3470 | 16637 | 29658 | 2.98 | 9.0E-11 | AL134395.1 | EST_HUMAN | DKFZp547D225_r1 547 (synonym: hfbr1) Homo sapiens cDNA clone DKFZp547D225 5' |
| 4622 | 17759 | 30741 | 0.8 | 9.0E-11 | AA775985.1 | EST_HUMAN | ae78f01.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:970297 3' |
| 5692 | 18886 | | 3.05 | 9.0E-11 | BE079780.1 | EST_HUMAN | RC6-BT0627-140200-011-E06 BT0627 Homo sapiens cDNA |
| 10357 | 23392 | 37002 | 1.17 | 9.0E-11 | AA324960.1 | EST_HUMAN | EST27872 Cerebellum II Homo sapiens cDNA 5' end |
| 10357 | 23392 | 37003 | 1.17 | 9.0E-11 | AA324960.1 | EST_HUMAN | EST27872 Cerebellum II Homo sapiens cDNA 5' end |
| 12556 | 25378 | 32072 | 2.45 | 9.0E-11 | C16635.1 | EST_HUMAN | C16635 Clontech human aorta polyA+ mRNA (#6572) Homo sapiens cDNA clone GEN-606B08 5' |
| 3185 | 16360 | | 10.53 | 8.0E-11 | H19971.1 | EST_HUMAN | yn53f11.s1 Soares adult brain N2b5HB55Y Homo sapiens cDNA clone IMAGE:172173 3' similar to contains L1 repetitive element ; |
| 4164 | 17306 | 30300 | 5.37 | 8.0E-11 | N23712.1 | EST_HUMAN | yw46e06.s1 Weizmann Olfactory Epithelium Homo sapiens cDNA clone IMAGE:255298 3' |
| 5913 | 19101 | 32415 | 0.66 | 8.0E-11 | AW674316.1 | EST_HUMAN | ba60g04.x1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2900982 3' |
| 6811 | 19965 | | 0.62 | 8.0E-11 | AW166158.1 | EST_HUMAN | xf45h11.x1 NCI_CGAP_Brn50 Homo sapiens cDNA clone IMAGE:2621061 3' similar to contains MER10.t1 MER10 repetitive element ; |
| 1479 | 14632 | 27717 | 2.09 | 7.0E-11 | AA330642.1 | EST_HUMAN | EST34392 Embryo, 6 week I Homo sapiens cDNA 5' end |
| 8695 | 21775 | 35307 | 2.61 | 7.0E-11 | AF163864.1 | NT | Homo sapiens SNCA isoform (SNCA) gene, complete cds, alternatively spliced |
| 10434 | 23469 | | 1.37 | 7.0E-11 | P11369 | SWISSPROT | RETROVIRUS-RELATED POL POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; ENDONUCLEASE] |
| 425 | 13620 | 26661 | 6.19 | 6.0E-11 | M55270.1 | NT | Human matrix Gla protein (MGP) gene, complete cds |
| 425 | 13620 | 26662 | 6.19 | 6.0E-11 | M55270.1 | NT | Human matrix Gla protein (MGP) gene, complete cds |
| 6862 | 20014 | 33424 | 0.91 | 6.0E-11 | L44140.1 | NT | Homo sapiens chromosome X region from filamin (FLN) gene to glucose-6-phosphate dehydrogenase (G6PD) gene, complete cds's |
| 7870 | 20924 | 34431 | 3.5 | 6.0E-11 | P08547 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 8559 | 21640 | 35179 | 6.99 | 6.0E-11 | AV727859.1 | EST_HUMAN | AV727859 HTC Homo sapiens cDNA clone HTCASC06 5' |
| 9514 | 22579 | 36145 | 0.5 | 6.0E-11 | BE063509.1 | EST_HUMAN | CM0-BT0281-031199-087-a03 BT0281 Homo sapiens cDNA |
| 12 | 13250 | 26250 | 1 | 5.0E-11 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 3450 | 13250 | 26250 | 1.24 | 5.0E-11 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 6645 | 19804 | 33191 | 1.92 | 5.0E-11 | AL163213.2 | NT | Homo sapiens chromosome 21 segment HS21C013 |
| 7699 | 20764 | 34248 | 11.57 | 6.0E-11 | 11416799 | NT | Homo sapiens protocadherin beta 3 (PCDHB3), mRNA |
| 1433 | 14586 | | 1.38 | 4.0E-11 | AA436042.1 | EST_HUMAN | zu01b12.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:730559 5' |
| 2851 | 15965 | 29074 | 9.84 | 4.0E-11 | BE885900.1 | EST_HUMAN | 601507531F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3909295 5' |
| 3034 | 16210 | 29233 | 1.26 | 4.0E-11 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 4740 | 17875 | 30858 | 0.81 | 4.0E-11 | D44666.1 | EST_HUMAN | HUMSUPY069 Human brain cDNA Homo sapiens cDNA clone 069 |
| 6605 | 19765 | 33154 | 3.29 | 4.0E-11 | P20095 | SWISSPROT | PRE-MRNA SPLICING FACTOR RNA HELICASE PRP2 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7141 | 20276 | 33716 | 0.82 | 4.0E-11 | AA442630.1 | EST_HUMAN | zv69f10.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:757963 5' similar to TR:G1055250 G1055250 PHEROMONE RECEPTOR VN4. ; |
| 7532 | 20605 | | 3.66 | 4.0E-11 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 9595 | 22650 | | 1.56 | 4.0E-11 | BE149425.1 | EST_HUMAN | RC1-HT0256-210100-013-f08 HT0256 Homo sapiens cDNA |
| 9862 | 22902 | 36487 | 0.79 | 4.0E-11 | AI609753.1 | EST_HUMAN | tf82g12.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2105830 3' similar to WP:ZK353.1 CE00385 ; |
| 10859 | 23892 | 37513 | 0.94 | 4.0E-11 | BF367293.1 | EST_HUMAN | MR0-GN0024-180900-008-h09 GN0024 Homo sapiens cDNA |
| 12794 | 25530 | 32008 | 1.71 | 4.0E-11 | 11545732 | NT | Homo sapiens SH3-domain binding protein 1 (SH3BP1), mRNA |
| 1521 | 14674 | 27766 | 4 | 3.0E-11 | 6679077 | NT | Mus musculus expressed in non-metastatic cells 2, protein (NM23B) (Nme2), mRNA |
| 4391 | 17534 | | 1.35 | 3.0E-11 | AA309248.1 | EST_HUMAN | EST180120 Liver, hepatocellular carcinoma Homo sapiens cDNA 5' end |
| 982 | 14165 | 27215 | 1.43 | 2.0E-11 | AI150502.1 | EST_HUMAN | qf36c04.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1752102 3' similar to contains MER10.t3 MER10 repetitive element ; |
| 1212 | 14373 | 27434 | 20.98 | 2.0E-11 | R24807.1 | EST_HUMAN | yg43e12.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:35144 5' |
| 1212 | 14373 | 27435 | 20.98 | 2.0E-11 | R24807.1 | EST_HUMAN | yg43e12.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:35144 5' |
| 1644 | 14796 | 27880 | 4.44 | 2.0E-11 | L17432.1 | NT | Gallus gallus rho-globin, beta-H globin, beta-A globin, epsilon-globin, and olfactory receptor-like protein COR3'beta (COR3'beta) genes, complete cds |
| 1644 | 14796 | 27881 | 4.44 | 2.0E-11 | L17432.1 | NT | Gallus gallus rho-globin, beta-H globin, beta-A globin, epsilon-globin, and olfactory receptor-like protein COR3'beta (COR3'beta) genes, complete cds |
| 2823 | 15937 | 29047 | 1.09 | 2.0E-11 | AF087913.1 | NT | Human endogenous retrovirus HERV-P-T47D |
| 3266 | 16440 | 29461 | 5.56 | 2.0E-11 | P10263 | SWISSPROT | RETROVIRUS-RELATED GAG POLYPROTEIN (VERSION 1) |
| 3403 | 16573 | 29588 | 0.92 | 2.0E-11 | AI478617.1 | EST_HUMAN | tm54c09.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2161936 3' |
| 3448 | 16616 | 29634 | 0.67 | 2.0E-11 | Q10473 | SWISSPROT | POLYPEPTIDE N-ACETYLGALACTOSAMINYLTRANSFERASE (PROTEIN-UDP ACETYLGALACTOSAMINYLTRANSFERASE) (UDP-GALNAC:POLYPEPTIDE, N-ACETYLGALACTOSAMINYLTRANSFERASE) (GALNAC-T1) |
| 3586 | 16750 | | 1.01 | 2.0E-11 | AF020503.1 | NT | Homo sapiens FRA3B common fragile region, diadenosine triphosphate hydrolase (FHIT) gene, exon 5 |
| 3797 | 16958 | 29962 | 0.64 | 2.0E-11 | P70213 | SWISSPROT | FRIEND VIRUS SUSCEPTIBILITY PROTEIN 1 |
| 4566 | 17704 | | 1.07 | 2.0E-11 | BE065537.1 | EST_HUMAN | RC3-BT0316-170200-014-e05 BT0316 Homo sapiens cDNA |
| 4728 | 17863 | | 0.8 | 2.0E-11 | AL163227.2 | NT | Homo sapiens chromosome 21 segment HS21C027 |
| 5051 | 18179 | | 1.85 | 2.0E-11 | BE062558.1 | EST_HUMAN | QV2-BT0258-261099-014-a01 BT0258 Homo sapiens cDNA |
| 5142 | 18265 | 31234 | 0.82 | 2.0E-11 | AA307331.1 | EST_HUMAN | EST178226 Colon carcinoma (HCC) cell line Homo sapiens cDNA 5' end similar to similar to alpha-2-macroglobulin |
| 6263 | 19437 | 32784 | 1.23 | 2.0E-11 | AW877806.1 | EST_HUMAN | QV2-PT0073-280300-109-h08 PT0073 Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6440 | 19607 | 32970 | 2 | 2.0E-11 | AA581028.1 | EST_HUMAN | nc83h05.r1 NCI_CGAP_GC1 Homo sapiens cDNA clone IMAGE:797433 5' similar to SW:PR16_YEAST P15938 PRE-MRNA SPLICING FACTOR RNA HELICASE PRP16. ; |
| 7345 | 20425 | 33888 | 0.85 | 2.0E-11 | BF592945.1 | EST_HUMAN | 7j97c03.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:3442565 3' |
| 8066 | 21148 | | 0.59 | 2.0E-11 | P37072 | SWISSPROT | OLFACTORY RECEPTOR-LIKE PROTEIN COR6 |
| 9424 | 22498 | | 1.39 | 2.0E-11 | AF029308.1 | NT | Homo sapiens chromosome 9 duplication of the T cell receptor beta locus and trypsinogen gene families |
| 10491 | 23526 | 37135 | 5.13 | 2.0E-11 | Q13606 | SWISSPROT | OLFACTORY RECEPTOR 5I1 (OLFACTORY RECEPTOR-LIKE PROTEIN OLF1) |
| 10734 | 23767 | 37376 | 1.09 | 2.0E-11 | AW885874.1 | EST_HUMAN | RC4-OT0072-170400-013-c11 OT0072 Homo sapiens cDNA |
| 10734 | 23767 | 37377 | 1.09 | 2.0E-11 | AW885874.1 | EST_HUMAN | RC4-OT0072-170400-013-c11 OT0072 Homo sapiens cDNA |
| 11375 | 24436 | 38094 | 1.64 | 2.0E-11 | AA035369.1 | EST_HUMAN | zk27g02.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:471794 3' |
| 11375 | 24436 | 38095 | 1.64 | 2.0E-11 | AA035369.1 | EST_HUMAN | zk27g02.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:471794 3' |
| 11408 | 24469 | 38133 | 1.4 | 2.0E-11 | AA261956.1 | EST_HUMAN | zs18b04.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:685519 5' |
| 12122 | 25102 | 38807 | 12.19 | 2.0E-11 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 12297 | 26105 | | 1.85 | 2.0E-11 | AA704195.1 | EST_HUMAN | zj77e03.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:460924 3' |
| 12328 | 25237 | | 1.44 | 2.0E-11 | AW842143.1 | EST_HUMAN | RC0-CN0027-210100-011-c01 CN0027 Homo sapiens cDNA |
| 12354 | 25256 | 32115 | 2.15 | 2.0E-11 | BF377859.1 | EST_HUMAN | CM2-TN0140-070900-372-g01 TN0140 Homo sapiens cDNA |
| 12641 | 25431 | | 1.43 | 2.0E-11 | D25217.2 | NT | Homo sapiens mRNA for KIAA0027 protein, partial cds |
| 12813 | 25542 | | 3.62 | 2.0E-11 | P08547 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 13180 | 25767 | | 2.5 | 2.0E-11 | 11417966 | NT | Homo sapiens SEC14 (S. cerevisiae)-like 2 (SEC14L2), mRNA |
| 693 | 13876 | 26909 | 1.67 | 1.0E-11 | AJ131016.1 | NT | Homo sapiens SCL gene locus |
| 806 | 13986 | 27038 | 1.72 | 1.0E-11 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 1244 | 14403 | 27464 | 2.91 | 1.0E-11 | AL163279.2 | NT | Homo sapiens chromosome 21 segment HS21C079 |
| 1528 | 14681 | | 1.82 | 1.0E-11 | AF119914.1 | NT | Homo sapiens PRO3078 mRNA, complete cds |
| 2095 | 15235 | 28356 | 0.94 | 1.0E-11 | P16258 | SWISSPROT | OXYSTEROL-BINDING PROTEIN |
| 2195 | 15330 | 28455 | 3.69 | 1.0E-11 | AF000573.1 | NT | Homo sapiens homogentisate 1,2-dioxygenase gene, complete cds |
| 2229 | 15363 | 28492 | 1.1 | 1.0E-11 | AA309318.1 | EST_HUMAN | EST180186 Liver, hepatocellular carcinoma Homo sapiens cDNA 5' end similar to EST containing Alu repeat |
| 3588 | 16752 | 29767 | 0.95 | 1.0E-11 | BE004315.1 | EST_HUMAN | CM0-BN0105-170300-292-d12 BN0105 Homo sapiens cDNA |
| 5447 | 18647 | 31625 | 14.68 | 1.0E-11 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 5953 | 19139 | 32455 | 0.78 | 1.0E-11 | BF222646.1 | EST_HUMAN | 7p57d01.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:3649945 3' similar to contains MER10.b3 MER10 repetitive element ; |
| 8396 | 21477 | 35004 | 2.65 | 1.0E-11 | 4885546 | NT | Homo sapiens PHD finger protein 2 (PHF2) mRNA |
| 8781 | 21860 | 35403 | 4.61 | 1.0E-11 | R13174.1 | EST_HUMAN | yf73d08.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:28166 5' |
| 9248 | 22325 | 35870 | 1.49 | 1.0E-11 | BF365119.1 | EST_HUMAN | QV4-NN1149-250900-423-a03 NN1149 Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9248 | 22325 | 35871 | 1.49 | 1.0E-11 | BF365119.1 | EST_HUMAN | QV4-NN1149-250900-423-a03 NN1149 Homo sapiens cDNA |
| 10626 | 23660 | | 0.54 | 1.0E-11 | AL163302.2 | NT | Homo sapiens chromosome 21 segment HS21C102 |
| 11566 | 24621 | 38302 | 2.02 | 1.0E-11 | BF680078.1 | EST_HUMAN | 602154807F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4295977 5' |
| 12903 | 25879 | | 1.37 | 1.0E-11 | Z20377.1 | EST_HUMAN | HSAAACADH P, Human foetal Brain Whole tissue Homo sapiens cDNA |
| 3017 | 16193 | 29216 | 0.75 | 9.0E-12 | P20742 | SWISSPROT | PREGNANCY ZONE PROTEIN PRECURSOR |
| 10002 | 23040 | 36632 | 1.17 | 9.0E-12 | AL163300.2 | NT | Homo sapiens chromosome 21 segment HS21C100 |
| 10002 | 23040 | 36633 | 1.17 | 9.0E-12 | AL163300.2 | NT | Homo sapiens chromosome 21 segment HS21C100 |
| 9539 | 22604 | | 0.88 | 8.0E-12 | BE074720.1 | EST_HUMAN | IL5-BT0578-130300-036-G12 BT0578 Homo sapiens cDNA |
| 12408 | 25287 | | 4.68 | 8.0E-12 | AJ271736.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 2/2 |
| 4783 | 17918 | 30905 | 1.57 | 7.0E-12 | Q05904 | SWISSPROT | 34 KD SPICULE MATRIX PROTEIN PRECURSOR (LSM34) |
| 11631 | 24711 | 38402 | 6.8 | 7.0E-12 | AA704735.1 | EST_HUMAN | zj23g01.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:451152 3' |
| 13225 | 25903 | | 1.18 | 7.0E-12 | D16473.1 | NT | Human mRNA, Xq terminal portion |
| 3637 | 16801 | | 0.96 | 6.0E-12 | AV730554.1 | EST_HUMAN | AV730554 HTF Homo sapiens cDNA clone HTFAWF06 5' |
| 4468 | 17608 | 30586 | 9.23 | 6.0E-12 | AA732516.1 | EST_HUMAN | nz88f11.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1302573 3' similar to contains Alu repetitive element; |
| 5336 | 18449 | 31418 | 5.12 | 6.0E-12 | AI459161.1 | EST_HUMAN | tj65g12.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2146438 3' similar to contains MER10.t2 MER10 MER10 repetitive element ; |
| 9196 | 22274 | 35811 | 1.09 | 6.0E-12 | AF003249.1 | NT | Morone saxatilis myosin heavy chain FM3A (FM3A) mRNA, complete cds |
| 9675 | 22637 | | 1.81 | 6.0E-12 | AA847898.1 | EST_HUMAN | od10g11.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1367688 similar to contains MER29.t2 MER29 repetitive element ; |
| 13205 | 25786 | | 1.25 | 6.0E-12 | AW885846.1 | EST_HUMAN | RC4-OT0072-060400-012-f11 OT0072 Homo sapiens cDNA |
| 1068 | 14234 | 27293 | 2.37 | 5.0E-12 | T06573.1 | EST_HUMAN | EST04462 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBDV33 |
| 3477 | 16644 | 29663 | 1.28 | 5.0E-12 | BE047779.1 | EST_HUMAN | tz42b05.y1 NCI_CGAP_Brn52 Homo sapiens cDNA clone IMAGE:2291217 5' |
| 3821 | 16981 | 29984 | 7.44 | 5.0E-12 | AJ271736.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 2/2 |
| 6145 | 19323 | 32666 | 6.13 | 5.0E-12 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 6145 | 19323 | 32667 | 6.13 | 5.0E-12 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 6620 | 19780 | 33168 | 9.96 | 5.0E-12 | AW974760.1 | EST_HUMAN | EST386850 MAGE resequences, MAGN Homo sapiens cDNA |
| 7176 | 20052 | 33462 | 1.06 | 5.0E-12 | AL040739.1 | EST_HUMAN | DKFZp434B1615_s1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434B1615 3' |
| 7187 | 20052 | 33462 | 0.83 | 5.0E-12 | AL040739.1 | EST_HUMAN | DKFZp434B1615_s1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434B1615 3' |
| 8424 | 21605 | 35038 | 1.28 | 5.0E-12 | AA033745.1 | EST_HUMAN | zf01g12.s1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:375718 3' similar to contains L1.t3 L1 repetitive element ; |
| 8867 | 21946 | | 0.55 | 5.0E-12 | AW887037.1 | EST_HUMAN | RC1-OT0086-220300-011-b07 OT0086 Homo sapiens cDNA |
| 9195 | 22273 | | 0.77 | 5.0E-12 | AL079581.1 | EST_HUMAN | DKFZp434J0426_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434J0426 5' |
| 9308 | 22384 | 35936 | 2.52 | 5.0E-12 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO:. | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9623 | 22678 | 36247 | 1.22 | 6.0E-12 | P34982 | SWISSPROT | OLFACTORY RECEPTOR 1D2 (OLFACTORY RECEPTOR-LIKE PROTEIN HGMP07E) (OLFACTORY RECEPTOR 17-4) (OR17-4) |
| 10482 | 23517 |  | 4.8 | 5.0E-12 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 10573 | 23608 | 37213 | 0.69 | 5.0E-12 | AL163302.2 | NT | Homo sapiens chromosome 21 segment HS21C102 |
| 10793 | 23828 | 37449 | 0.6 | 5.0E-12 | 6978754 | NT | Rattus norvegicus Deleted in colcorectal cancer (rat homolog) (Dcc), mRNA |
| 254 | 13474 | 26505 | 3.29 | 4.0E-12 | AA700326.1 | EST_HUMAN | zj74g11.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:460676 3' |
| 255 | 13474 | 26505 | 3.42 | 4.0E-12 | AA700326.1 | EST_HUMAN | zj74g11.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:460676 3' |
| 4742 | 17877 | 30860 | 0.88 | 4.0E-12 | AI689984.1 | EST_HUMAN | tx26h05.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2270746 3' similar to TR:Q13539 Q13539 MARINER TRANSPOSASE. ; |
| 7797 | 20853 |  | 0.71 | 4.0E-12 | BF445140.1 | EST_HUMAN | nad21b03.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3366077 3' similar to contains MER7.b2 MER7 repetitive element ; |
| 8437 | 21518 |  | 4.81 | 4.0E-12 | AF109907.1 | NT | Homo sapiens S164 gene, partial cds; PS1 and hypothetical protein genes, complete cds; and S171 gene, partial cds |
| 11338 | 24401 | 38050 | 4.33 | 4.0E-12 | AJ229043.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22, segment 3/3 |
| 12684 | 25466 |  | 2.11 | 4.0E-12 | U78027.1 | NT | Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds |
| 631 | 13816 | 26839 | 2.58 | 3.0E-12 | AW341683.1 | EST_HUMAN | hd13d01.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2909377 3' similar to TR:O14517 O14517 SMRP. ; |
| 631 | 13816 | 26840 | 2.58 | 3.0E-12 | AW341683.1 | EST_HUMAN | hd13d01.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2909377 3' similar to TR:O14517 O14517 SMRP. ; |
| 5276 | 18395 | 31363 | 0.78 | 3.0E-12 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 5568 | 18765 | 31806 | 1.44 | 3.0E-12 | AF111168.2 | NT | Homo sapiens serine palmitoyl transferase, subunit II gene, complete cds; and unknown genes |
| 8570 | 21651 | 35193 | 0.5 | 3.0E-12 | O35453 | SWISSPROT | SERINE PROTEASE HEPSIN |
| 10891 | 23975 | 37606 | 2.32 | 3.0E-12 | U37672.1 | NT | Human prostate specific antigen gene, 5' flanking region |
| 10891 | 23975 | 37607 | 2.32 | 3.0E-12 | U37672.1 | NT | Human prostate specific antigen gene, 5' flanking region |
| 1685 | 14837 | 27921 | 1.24 | 2.0E-12 | AW802131.1 | EST_HUMAN | IL5-UM0071-120400-065-a05 UM0071 Homo sapiens cDNA |
| 3556 | 16721 | 29736 | 0.93 | 2.0E-12 | 6754495 | NT | *Mus musculus* keratin-associated protein 6.2 (Krtap6-2), mRNA |
| 4230 | 17377 | 30365 | 1.29 | 2.0E-12 | J01884.1 | NT | Rat U3A small nuclear RNA |
| 4230 | 17377 | 30366 | 1.29 | 2.0E-12 | J01884.1 | NT | Rat U3A small nuclear RNA |
| 4541 | 17679 |  | 2.03 | 2.0E-12 | BE063509.1 | EST_HUMAN | CM0-BT0281-031199-087-a03 BT0281 Homo sapiens cDNA |
| 5018 | 18147 | 31123 | 0.71 | 2.0E-12 | O70306 | SWISSPROT | TBX15 PROTEIN (T-BOX PROTEIN 15) |
| 5018 | 18147 | 31124 | 0.71 | 2.0E-12 | O70306 | SWISSPROT | TBX15 PROTEIN (T-BOX PROTEIN 15) |
| 6606 | 19766 |  | 2.08 | 2.0E-12 | AW971857.1 | EST_HUMAN | EST383946 MAGE resequences, MAGL Homo sapiens cDNA |
| 7326 | 20408 | 33870 | 3.85 | 2.0E-12 | T08169.1 | EST_HUMAN | EST06060 Infant Brain, Bento Soares Homo sapiens cDNA clone HIBBA13 5' end |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7499 | 20574 | 34047 | 1.33 | 2.0E-12 | BE173035.1 | EST_HUMAN | MR0-HT0559-200400-015-e08 HT0559 Homo sapiens cDNA |
| 7838 | 20893 | 34395 | 2.19 | 2.0E-12 | 11422229 | NT | Homo sapiens Ac-like transposable element (ALTE), mRNA |
| 9508 | 22774 | | 1.88 | 2.0E-12 | AF196864.1 | NT | Homo sapiens putative BPES syndrome breakpoint region protein gene, complete cds |
| 10191 | 23228 | | 8.32 | 2.0E-12 | BE165980.1 | EST_HUMAN | MR3-HT0487-150200-113-g01 HT0487 Homo sapiens cDNA |
| 10733 | 23766 | 37375 | 0.76 | 2.0E-12 | AI334130.1 | EST_HUMAN | qq07f02.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1931835 3' similar to TR:Q13538 Q13538 ORF2: FUNCTION UNKNOWN. ; |
| 12129 | 25109 | 38813 | 1.53 | 2.0E-12 | AW242934.1 | EST_HUMAN | xn27h03.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2694965 3' |
| 12313 | 25228 | | 1.34 | 2.0E-12 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 12516 | 25352 | | 1.46 | 2.0E-12 | 11418248 | NT | Homo sapiens sulfotransferase-related protein (SULTX3), mRNA |
| 125 | 13354 | 26385 | 1.64 | 1.0E-12 | AW627674.1 | EST_HUMAN | hh90a09.x1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2970040 3' similar to contains MER18.t1 MER18 repetitive element ; |
| 2044 | 15185 | | 1.78 | 1.0E-12 | AI871726.1 | EST_HUMAN | wm51f07.x1 NCI_CGAP_Ut2 Homo sapiens cDNA clone IMAGE:2439493 3' similar to contains L1.b3 L1 repetitive element ; |
| 3138 | 16314 | 29326 | 1.04 | 1.0E-12 | AF000991.1 | NT | Homo sapiens testis-specific Testis Transcript Y 2 (TTY2) mRNA, partial cds |
| 3138 | 16314 | 29327 | 1.04 | 1.0E-12 | AF000991.1 | NT | Homo sapiens testis-specific Testis Transcript Y 2 (TTY2) mRNA, partial cds |
| 3978 | 17135 | 30138 | 40.43 | 1.0E-12 | AU132248.1 | EST_HUMAN | AU132248 NT2RP3 Homo sapiens cDNA clone NT2RP3004070 5' |
| 3978 | 17135 | 30139 | 40.43 | 1.0E-12 | AU132248.1 | EST_HUMAN | AU132248 NT2RP3 Homo sapiens cDNA clone NT2RP3004070 5' |
| 6088 | 19269 | | 1.6 | 1.0E-12 | U82828.1 | NT | Homo sapiens ataxia telangiectasia (ATM) gene, complete cds |
| 6166 | 19342 | | 1.62 | 1.0E-12 | Q9Y2G7 | SWISSPROT | HYPOTHETICAL ZINC FINGER PROTEIN KIAA0961 |
| 6282 | 19455 | 32804 | 0.59 | 1.0E-12 | BF642800.1 | EST_HUMAN | EST00008 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1847869 5' |
| 6282 | 19455 | 32805 | 0.59 | 1.0E-12 | BF642800.1 | EST_HUMAN | EST00008 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1847869 5' |
| 6662 | 19821 | 33208 | 0.63 | 1.0E-12 | AF229843.1 | NT | Mus musculus WNT-2 gene, partial cds; putative ankyrin-related protein and cystic fibrosis transmembrane conductance regulator (CFTR) genes, section 1 of 2 of the complete cds; and unknown gene |
| 7265 | 20348 | 33800 | 2.53 | 1.0E-12 | AF196864.1 | NT | Homo sapiens putative BPES syndrome breakpoint region protein gene, complete cds |
| 7300 | 20382 | 33840 | 10.78 | 1.0E-12 | AI248533.1 | EST_HUMAN | qh66a04.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1849614 3' similar to gb:M19503 LINE-1 REVERSE TRANSCRIPTASE HOMOLOG (HUMAN);contains MER10.t1 MER10 repetitive element ; |
| 7300 | 20382 | 33841 | 10.78 | 1.0E-12 | AI248533.1 | EST_HUMAN | qh66a04.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1849614 3' similar to gb:M19503 LINE-1 REVERSE TRANSCRIPTASE HOMOLOG (HUMAN);contains MER10.t1 MER10 repetitive element ; |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8686 | 21766 | 35298 | 0.59 | 1.0E-12 | U66059.1 | NT | Human germline T-cell receptor beta chain Dopamine-beta-hydroxylase-like, TRY1, TRY2, TRY3, TCRBV27S1P, TCRBV22S1A2N1T, TCRBV9S1A1T, TCRBV7S1A1N2T, TCRBV5S1A1T, TCRBV13S3, TCRBV6S7P, TCRBV7S3A2T, TCRBV13S2A1T, TCRBV9S2A2PT, TCRBV7S2A1N4T, TCRBV13S9/13S> |
| 8902 | 21981 | 35521 | 1.25 | 1.0E-12 | AA782323.1 | EST_HUMAN | ac26d05.s1 Stratagene ovary (#937217) Homo sapiens cDNA clone IMAGE:857577 3' |
| 12215 | 25166 | 38835 | 2.32 | 1.0E-12 | AW962164.1 | EST_HUMAN | EST374237 MAGE resequences, MAGG Homo sapiens cDNA |
| 12437 | 25310 | | 1.54 | 1.0E-12 | AI738592.1 | EST_HUMAN | wi33h08.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:2392095 3' |
| 12600 | 26068 | | 1.93 | 1.0E-12 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 12788 | 26166 | | 1.19 | 1.0E-12 | P44836 | SWISSPROT | PROBABLE TONB-DEPENDENT RECEPTOR HI0712 PRECURSOR |
| 12951 | 25661 | | 2.82 | 1.0E-12 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 4056 | 17212 | 30223 | 1.21 | 9.0E-13 | AB029900.1 | NT | Homo sapiens CST gene for cerebroside sulfotransferase, exon 1, 2, 3, 4, 5 |
| 9801 | 22841 | | 2.81 | 9.0E-13 | N69653.1 | EST_HUMAN | za26b06.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:293651 3' |
| 735 | 13917 | 26957 | 5.03 | 8.0E-13 | U29185.1 | NT | Homo sapiens prion protein (PrP) gene, complete cds |
| 735 | 13917 | 26958 | 5.03 | 8.0E-13 | U29185.1 | NT | Homo sapiens prion protein (PrP) gene, complete cds |
| 1885 | 15029 | 28136 | 2.73 | 8.0E-13 | U80017.1 | NT | Homo sapiens basic transcription factor 2 p44 (btf2p44) gene, partial cds, neuronal apoptosis inhibitory protein (naip) and survival motor neuron protein (smn) genes, complete cds |
| 8303 | 21385 | 34906 | 0.63 | 8.0E-13 | AI884398.1 | EST_HUMAN | wm31h09.x1 NCI_CGAP_Ut4 Homo sapiens cDNA clone IMAGE:2437601 3' |
| 8303 | 21385 | 34907 | 0.63 | 8.0E-13 | AI884398.1 | EST_HUMAN | wm31h09.x1 NCI_CGAP_Ut4 Homo sapiens cDNA clone IMAGE:2437601 3' |
| 10360 | 23385 | | 2.82 | 8.0E-13 | U78027.1 | NT | Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds |
| 8429 | 21510 | | 0.77 | 7.0E-13 | Q95155 | SWISSPROT | OLFACTORY RECEPTOR-LIKE PROTEIN OLF2 |
| 12713 | 25474 | | 32 | 7.0E-13 | BE778223.1 | EST_HUMAN | 601463285F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3866613 5' |
| 12976 | 25635 | | 1.53 | 7.0E-13 | Q10473 | SWISSPROT | POLYPEPTIDE N-ACETYLGALACTOSAMINYLTRANSFERASE (PROTEIN-UDP ACETYLGALACTOSAMINYLTRANSFERASE) (UDP-GALNAC:POLYPEPTIDE, N-ACETYLGALACTOSAMINYLTRANSFERASE) (GALNAC-T1) |
| 2168 | 15303 | 28430 | 5.65 | 6.0E-13 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 5239 | 18361 | 31329 | 0.93 | 6.0E-13 | AI267928.1 | EST_HUMAN | qo44a09.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1911352 3' |
| 3399 | 16569 | | 1.15 | 5.0E-13 | R78338.1 | EST_HUMAN | yi82f04.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:145759 5' |
| 3484 | 16652 | | 1.56 | 5.0E-13 | AA435773.1 | EST_HUMAN | zt77a12.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:728360 3' similar to contains Alu repetitive element;contains element MER22 repetitive element ; |
| 7016 | 20152 | 33572 | 0.99 | 5.0E-13 | P08983 | SWISSPROT | GAP JUNCTION BETA-1 PROTEIN (CONNEXIN 30) (CX30) |
| 11100 | 24173 | 37808 | 2.64 | 5.0E-13 | P07313 | SWISSPROT | MYOSIN LIGHT CHAIN KINASE, SKELETAL MUSCLE (MLCK) |
| 1916 | 15059 | | 4.86 | 4.0E-13 | AW378614.1 | EST_HUMAN | PM2-HT0224-221099-001-e11 HT0224 Homo sapiens cDNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2531 | 15656 | | 1.61 | 4.0E-13 | AF003529.1 | NT | Homo sapiens glypican 3 (GPC3) gene, partial cds and flanking repeat regions |
| 4869 | 18002 | | 1.06 | 4.0E-13 | AA454054.1 | EST_HUMAN | zx48d07.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:795469 5' |
| 5704 | 18897 | 32189 | 4.47 | 4.0E-13 | BE169131.1 | EST_HUMAN | PM3-HT0520-230200-002-c08 HT0520 Homo sapiens cDNA |
| 7355 | 20434 | 33896 | 1.09 | 4.0E-13 | AB037760.1 | NT | Homo sapiens mRNA for KIAA1329 protein, partial cds |
| 7788 | 20844 | 34337 | 1.08 | 4.0E-13 | AA431529.1 | EST_HUMAN | zw76g12.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:782182 5' similar to TR:G452763 G452763 COR1 MRNA. ; |
| 7898 | 20960 | | 2.62 | 4.0E-13 | N44291.1 | EST_HUMAN | yy33g05.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:273080 5' similar to PIR:A32995 A32995 t complex sterility protein - mouse ; |
| 9042 | 22121 | 35663 | 1.38 | 4.0E-13 | AL043810.1 | EST_HUMAN | DKFZp434A0128_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434A0128 5' |
| 9702 | 22751 | 36321 | 0.47 | 4.0E-13 | AA076907.1 | EST_HUMAN | 7B04H11 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B04H11 |
| 10226 | 23262 | 36850 | 4.44 | 4.0E-13 | AI289831.1 | EST_HUMAN | qn32d05.x1 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1899945 3' similar to contains Alu repetitive element; |
| 11439 | 24500 | 38167 | 1.54 | 4.0E-13 | AA435819.1 | EST_HUMAN | zt78g10.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:728514 3' |
| 11439 | 24500 | 38168 | 1.54 | 4.0E-13 | AA435819.1 | EST_HUMAN | zt78g10.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:728514 3' |
| 184 | 13406 | | 4.35 | 3.0E-13 | AF003528.1 | NT | Homo sapiens X-linked anhidroitic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 888 | 14064 | | 1.81 | 3.0E-13 | AA430310.1 | EST_HUMAN | zw68g08.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:781406 5' |
| 1502 | 14655 | 27737 | 0.96 | 3.0E-13 | AI904151.1 | EST_HUMAN | CM-BT043-090299-075 BT043 Homo sapiens cDNA |
| 2443 | 15571 | 28700 | 1.53 | 3.0E-13 | AJ271736.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 2/2 |
| 2548 | 15673 | | 2.28 | 3.0E-13 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 2729 | 15847 | 28957 | 3.69 | 3.0E-13 | BF372962.1 | EST_HUMAN | CM3-FT0100-140700-242-h08 FT0100 Homo sapiens cDNA |
| 3256 | 16430 | | 2.44 | 3.0E-13 | AA745844.1 | EST_HUMAN | ob18d02.s1 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1324035 3' |
| 3592 | 16756 | 29771 | 9.73 | 3.0E-13 | P18616 | SWISSPROT | DNA-DIRECTED RNA POLYMERASE II LARGEST SUBUNIT (VERSION 1) |
| 3592 | 16756 | 29772 | 9.73 | 3.0E-13 | P18616 | SWISSPROT | DNA-DIRECTED RNA POLYMERASE II LARGEST SUBUNIT (VERSION 1) |
| 5657 | 18851 | 32133 | 0.68 | 3.0E-13 | AA134017.1 | EST_HUMAN | zn88h10.r1 Stratagene lung carcinoma 937218 Homo sapiens cDNA clone IMAGE:565315 5' similar to contains THR.t2 THR repetitive element ; |
| 5657 | 18851 | 32134 | 0.68 | 3.0E-13 | AA134017.1 | EST_HUMAN | zn88h10.r1 Stratagene lung carcinoma 937218 Homo sapiens cDNA clone IMAGE:565315 5' similar to contains THR.t2 THR repetitive element ; |
| 6114 | 19294 | 32629 | 0.73 | 3.0E-13 | AW005639.1 | EST_HUMAN | wz88c02.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2565890 3' similar to TR:O75139 O75139 KIAA0644 PROTEIN. ; |
| 8067 | 21149 | 34669 | 7.1 | 3.0E-13 | U52111.2 | NT | Homo sapiens X28 region near ALD locus containing dual specificity phosphatase 9 (DUSP9), ribosomal protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMKI), creatine transporter (CRTR), CDM protein (CDM), adrenoleukodystrophy protein > |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8268 | 21350 | 34865 | 0.5 | 3.0E-13 | AA352487.1 | EST_HUMAN | EST60487 Activated T-cells XX Homo sapiens cDNA 5' end similar to similar to serine protease P100, Ra-reactive factor |
| 8268 | 21350 | 34866 | 0.5 | 3.0E-13 | AA352487.1 | EST_HUMAN | EST60487 Activated T-cells XX Homo sapiens cDNA 5' end similar to similar to serine protease P100, Ra-reactive factor |
| 10401 | 23436 | 37043 | 0.58 | 3.0E-13 | AW935487.1 | EST_HUMAN | RC2-DT0007-110100-014-g10 DT0007 Homo sapiens cDNA |
| 10915 | 23998 |  | 3.1 | 3.0E-13 | AI064768.1 | EST_HUMAN | HA0536 Human fetal liver cDNA library Homo sapiens cDNA |
| 11301 | 24367 | 38008 | 3.41 | 3.0E-13 | BE063509.1 | EST_HUMAN | CM0-BT0281-031199-087-a03 BT0281 Homo sapiens cDNA |
| 11898 | 24886 | 38585 | 1.62 | 3.0E-13 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 154 | 13379 | 26411 | 3.52 | 2.0E-13 | U52111.2 | NT | Homo sapiens X28 region near ALD locus containing dual specificity phosphatase 9 (DUSP9), ribosomal protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMKI), creatine transporter (CRTR), CDM protein (CDM), adrenoleukodystrophy protein > |
| 249 | 13470 | 26502 | 2.06 | 2.0E-13 | U23839.1 | NT | Danio rerio fibroblast growth factor receptor 4 mRNA, complete cds |
| 1289 | 14455 | 27521 | 8.93 | 2.0E-13 | AF239710.1 | NT | Homo sapiens DNA polymerase delta small subunit (POLD2) gene, exons 1 through 11 and complete cds |
| 3070 | 16246 | 29266 | 0.61 | 2.0E-13 | 8924119 | NT | Homo sapiens hypothetical protein PRO2130 (PRO2130), mRNA |
| 3070 | 16246 | 29267 | 0.61 | 2.0E-13 | 8924119 | NT | Homo sapiens hypothetical protein PRO2130 (PRO2130), mRNA |
| 3596 | 16760 | 29776 | 1.68 | 2.0E-13 | AF109907.1 | NT | Homo sapiens S164 gene, partial cds; PS1 and hypothetical protein genes, complete cds; and S171 gene, partial cds |
| 4224 | 17372 |  | 2.07 | 2.0E-13 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 6250 | 19424 | 32770 | 4.34 | 2.0E-13 | Q06852 | SWISSPROT | CELL SURFACE GLYCOPROTEIN 1 PRECURSOR (OUTER LAYER PROTEIN B) (S-LAYER PROTEIN 1) |
| 6335 | 19506 |  | 0.58 | 2.0E-13 | X79417.1 | NT | S.scrofa rps12 mRNA for ribosomal protein S12 |
| 6954 | 20267 | 33704 | 5.73 | 2.0E-13 | X16912.1 | NT | Human PFKL gene for liver-type 6-phosphofructokinase (EC 2.7.1.11) exon 2 |
| 7199 | 20064 | 33474 | 0.6 | 2.0E-13 | 10835072 | NT | Homo sapiens N-myristoyltransferase 1 (NMT1), mRNA |
| 7199 | 20064 | 33475 | 0.6 | 2.0E-13 | 10835072 | NT | Homo sapiens N-myristoyltransferase 1 (NMT1), mRNA |
| 10675 | 23709 | 37317 | 2.41 | 2.0E-13 | 5031896 | NT | Homo sapiens mab-21 (C. elegans)-like 1 (MAB21L1) mRNA |
| 12388 | 25274 |  | 22.49 | 2.0E-13 | AW892155.1 | EST_HUMAN | CM0-NN0001-100300-274-e11 NN0001 Homo sapiens cDNA |
| 302 | 13518 | 26551 | 1.34 | 1.0E-13 | S74129.1 | NT | FGF-1=fibroblast growth factor 1 [human, kidney, Genomic, 342 nt, segment 2 of 2] |
| 911 | 14086 | 27151 | 5.53 | 1.0E-13 | AJ007973.1 | NT | Homo sapiens LGMD2B gene |
| 1367 | 14521 | 27596 | 1.4 | 1.0E-13 | X87344.1 | NT | H.sapiens DMA, DMB, HLA-Z1, IPP2, LMP2, TAP1, LMP7, TAP2, DOB, DQB2 and RING8, 9, 13 and 14 genes |
| 2079 | 15219 | 28339 | 2.61 | 1.0E-13 | AA720574.1 | EST_HUMAN | nw21g02.s1 NCI_CGAP_GCB0 Homo sapiens cDNA clone IMAGE:1241138 3' similar to contains THR.t3 THR repetitive element ; |
| 4715 | 17850 | 30833 | 1.32 | 1.0E-13 | BF340987.1 | EST_HUMAN | 602038009F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4185866 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8094 | 21176 | 34691 | 0.97 | 1.0E-13 | AA577812.1 | EST_HUMAN | nn24d01.s1 NCI_CGAP_Gas1 Homo sapiens cDNA clone IMAGE:1084801 3' similar to contains Alu repetitive element;contains element MER24 repetitive element ; |
| 8094 | 21176 | 34692 | 0.97 | 1.0E-13 | AA577812.1 | EST_HUMAN | nn24d01.s1 NCI_CGAP_Gas1 Homo sapiens cDNA clone IMAGE:1084801 3' similar to contains Alu repetitive element;contains element MER24 repetitive element ; |
| 10295 | 23330 | | 1.04 | 1.0E-13 | O15481 | SWISSPROT | MELANOMA-ASSOCIATED ANTIGEN B4 (MAGE-B4 ANTIGEN) |
| 10508 | 23543 | 37154 | 0.6 | 1.0E-13 | AF300701.1 | NT | Mus musculus osteotesticular protein tyrosine phosphatase mRNA, complete cds |
| 11661 | 24740 | 38431 | 9.74 | 1.0E-13 | BF108755.1 | EST_HUMAN | 7l45e10.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3524443 3' similar to contains MER29.b2 MER29 repetitive element ; |
| 12206 | 25160 | | 1.38 | 1.0E-13 | AV715377.1 | EST_HUMAN | AV715377 DCB Homo sapiens cDNA clone DCBAIE03 5', |
| 12920 | 25605 | | 3.46 | 1.0E-13 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 13077 | 25706 | | 1.85 | 1.0E-13 | X87579.1 | NT | H.sapiens CD4 gene |
| 343 | 13554 | 26583 | 3.76 | 9.0E-14 | AA781159.1 | EST_HUMAN | aj24c01.s1 Soares_testis_NHT Homo sapiens cDNA clone 1391232 3' similar to contains MER19.t1 MER19 repetitive element ; |
| 344 | 13555 | 26584 | 1.84 | 9.0E-14 | AA781159.1 | EST_HUMAN | aj24c01.s1 Soares_testis_NHT Homo sapiens cDNA clone 1391232 3' similar to contains MER19.t1 MER19 repetitive element ; |
| 2569 | 15694 | | 4.13 | 9.0E-14 | AW861577.1 | EST_HUMAN | RC4-CT0322-080100-013-d09 CT0322 Homo sapiens cDNA |
| 2811 | 15925 | 29036 | 7.9 | 9.0E-14 | AB038162.1 | NT | Homo sapiens TFF gene cluster for trefoil factor, complete cds |
| 3180 | 16355 | 29360 | 7.5 | 9.0E-14 | AW513296.1 | EST_HUMAN | xo54h05.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2707833 3' |
| 3310 | 13554 | 26583 | 1 | 9.0E-14 | AA781159.1 | EST_HUMAN | aj24c01.s1 Soares_testis_NHT Homo sapiens cDNA clone 1391232 3' similar to contains MER19.t1 MER19 repetitive element ; |
| 3898 | 17057 | 30057 | 7.37 | 9.0E-14 | D14547.1 | NT | Human DNA, SINE repetitive element |
| 4879 | 18010 | 30994 | 2.23 | 9.0E-14 | AJ002153.1 | NT | Saguinus oedipus gene for seminal vesicle secreted protein semenogelin I |
| 3587 | 16751 | | 1.17 | 8.0E-14 | BE468263.1 | EST_HUMAN | hz71c09.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3213424 3' |
| 4066 | 17222 | | 3.64 | 8.0E-14 | R76269.1 | EST_HUMAN | yi72e03.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:144796 3' |
| 9647 | 21090 | 34605 | 38.93 | 8.0E-14 | X89211.1 | NT | H.sapiens DNA for endogenous retroviral like element |
| 9760 | 22698 | 36266 | 3.22 | 8.0E-14 | AA219316.1 | EST_HUMAN | zq17c10.s1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:629970 3' |
| 11717 | 24757 | | 1.79 | 8.0E-14 | BE062558.1 | EST_HUMAN | QV2-BT0258-261099-014-a01 BT0258 Homo sapiens cDNA |
| 12611 | 25410 | 32048 | 2.43 | 8.0E-14 | AI688118.1 | EST_HUMAN | wc92h08.x1 NCI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:2326143 3' |
| 1658 | 16044 | | 4.76 | 7.0E-14 | AW151673.1 | EST_HUMAN | xf67e10.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2623146 3' similar to contains MER10.t2 MER10 repetitive element ; |
| 9120 | 22199 | | 0.73 | 7.0E-14 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 378 | 13585 | 26620 | 12.43 | 6.0E-14 | AF020503.1 | NT | Homo sapiens FRA3B common fragile region, diadenosine triphosphate hydrolase (FHIT) gene, exon 5 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10027 | 23065 | 36662 | 2.19 | 6.0E-14 | AF020503.1 | NT | Homo sapiens FRA3B common fragile region, diadenosine triphosphate hydrolase (FHIT) gene, exon 5 |
| 10027 | 23065 | 36663 | 2.19 | 6.0E-14 | AF020503.1 | NT | Homo sapiens FRA3B common fragile region, diadenosine triphosphate hydrolase (FHIT) gene, exon 5 |
| 633 | 13818 | 26842 | 4.17 | 5.0E-14 | Q63120 | SWISSPROT | CANALICULAR MULTISPECIFIC ORGANIC ANION TRANSPORTER 1 (MULTIDRUG RESISTANCE-ASSOCIATED PROTEIN 2) (CANALICULAR MULTIDRUG RESISTANCE PROTEIN) |
| 5166 | 18288 | 31254 | 1.32 | 5.0E-14 | AW073791.1 | EST_HUMAN | xb03b05.x1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2575185 3' similar to contains L1.t2 L1 repetitive element ; |
| 5650 | 18844 | 32125 | 5.26 | 5.0E-14 | P08547 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 1147 | 16030 | | 1.61 | 4.0E-14 | P04928 | SWISSPROT | S-ANTIGEN PROTEIN PRECURSOR |
| 1926 | 15069 | 28174 | 10.15 | 4.0E-14 | AJ007973.1 | NT | Homo sapiens LGMD2B gene |
| 3847 | 17007 | | 0.73 | 4.0E-14 | AA046502.1 | EST_HUMAN | zk67a06.r1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:487858 5' |
| 4407 | 17549 | 30533 | 1.04 | 4.0E-14 | N46328.1 | EST_HUMAN | yy73c12.s1 Soares_multiple_sclerosis_2NbHMSP Homo sapiens cDNA clone IMAGE:279190 3' similar to contains L1.t3 L1 repetitive element ; |
| 8145 | 21227 | | 0.71 | 4.0E-14 | X87344.1 | NT | H.sapiens DMA, DMB, HLA-Z1, IPP2, LMP2, TAP1, LMP7, TAP2, DOB, DQB2 and RING8, 9, 13 and 14 genes |
| 12043 | 25024 | 38729 | 5.5 | 4.0E-14 | BE242466.1 | EST_HUMAN | TCAAP1D1470 Pediatric acute myelogenous leukemia cell (FAB M1) Baylor-HGSC project=TCAA Homo sapiens cDNA clone TCAAP1470 |
| 12986 | 26203 | | 5.69 | 4.0E-14 | AI886224.1 | EST_HUMAN | wm08c03.x1 NCI_CGAP_Ut4 Homo sapiens cDNA clone IMAGE:2435332 3' similar to contains Alu repetitive element; |
| 972 | 14145 | 27204 | 1.56 | 3.0E-14 | X95466.1 | NT | R.norvegicus mRNA for CPG2 protein |
| 6873 | 20025 | 33434 | 0.93 | 3.0E-14 | AI420786.1 | EST_HUMAN | te91c12.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2094070 3' similar to TR:O00519 O00519 FATTY ACID AMIDE HYDROLASE. ; |
| 6873 | 20025 | 33435 | 0.93 | 3.0E-14 | AI420786.1 | EST_HUMAN | te91c12.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2094070 3' similar to TR:O00519 O00519 FATTY ACID AMIDE HYDROLASE. ; |
| 7173 | 20308 | 33749 | 0.6 | 3.0E-14 | AA386311.1 | EST_HUMAN | EST185054 Brain IV Homo sapiens cDNA |
| 8987 | 22066 | 35606 | 0.86 | 3.0E-14 | N42165.1 | EST_HUMAN | yy07b10.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:270523 5' |
| 11512 | 18495 | 31533 | 5.87 | 3.0E-14 | AW265354.1 | EST_HUMAN | xp45f12.x1 NCI_CGAP_HN11 Homo sapiens cDNA clone IMAGE:2743343 3' similar to contains Alu repetitive element;contains element MER9 repetitive element ; |
| 12894 | 26041 | | 1.88 | 3.0E-14 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 13212 | 25884 | 31853 | 1.51 | 3.0E-14 | BE891650.1 | EST_HUMAN | 601435233F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3920169 5' |
| 401 | 13598 | 26634 | 2.33 | 2.0E-14 | AJ271736.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 2/2 |
| 401 | 13598 | 26635 | 2.33 | 2.0E-14 | AJ271736.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 2/2 |
| 708 | 16019 | 26925 | 11.36 | 2.0E-14 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2461 | 15588 | | 1.04 | 2.0E-14 | AW372868.1 | EST_HUMAN | RC5-BT0377-091299-031-D12 BT0377 Homo sapiens cDNA |
| 2535 | 15660 | | 0.99 | 2.0E-14 | 7657529 | NT | Homo sapiens rhabdoid tumor deletion region protein 1 (RTDR1), mRNA |
| 2593 | 15718 | 28835 | 1.63 | 2.0E-14 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 5641 | 18835 | 31912 | 0.97 | 2.0E-14 | BF380661.1 | EST_HUMAN | IL2-UT0072-240800-142-D07 UT0072 Homo sapiens cDNA |
| 5738 | 18931 | 32229 | 1.03 | 2.0E-14 | AI312351.1 | EST_HUMAN | ta78h01.x2 NCI_CGAP_HSC2 Homo sapiens cDNA clone IMAGE:2050225 3' similar to contains L1.t3 L1 repetitive element ; |
| 5838 | 19028 | 32334 | 3 | 2.0E-14 | U01317.1 | NT | Human beta globin region on chromosome 11 |
| 7023 | 20159 | | 1.04 | 2.0E-14 | BE000550.1 | EST_HUMAN | RC3-BN0072-240200-011-a06 BN0072 Homo sapiens cDNA |
| 7437 | 20514 | 33987 | 1.06 | 2.0E-14 | P56163 | SWISSPROT | ZINC-FINGER PROTEIN NEURO-D4 |
| 7676 | 20741 | 34221 | 24.46 | 2.0E-14 | BE158761.1 | EST_HUMAN | IL2-HT0397-071299-024-D04 HT0397 Homo sapiens cDNA |
| 7676 | 20741 | 34222 | 24.46 | 2.0E-14 | BE158761.1 | EST_HUMAN | IL2-HT0397-071299-024-D04 HT0397 Homo sapiens cDNA |
| 10121 | 23159 | 36768 | 0.56 | 2.0E-14 | AI978795.1 | EST_HUMAN | wr59g10.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2492034 3' similar to contains Alu repetitive element; |
| 10630 | 23664 | 37273 | 0.51 | 2.0E-14 | AV741648.1 | EST_HUMAN | AV741648 CB Homo sapiens cDNA clone CBFBBF04 5' |
| 11019 | 24098 | 37736 | 3.62 | 2.0E-14 | AW139800.1 | EST_HUMAN | UI-H-BI1-adw-a-10-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2718234 3' |
| 12890 | 26045 | | 2.5 | 2.0E-14 | AF008191.1 | NT | Homo sapiens putative G6 protein (GR6) gene, complete cds |
| 13163 | 15660 | | 1.26 | 2.0E-14 | 7657529 | NT | Homo sapiens rhabdoid tumor deletion region protein 1 (RTDR1), mRNA |
| 1092 | 14257 | 27313 | 2.32 | 1.0E-14 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 1438 | 14591 | 27664 | 7.01 | 1.0E-14 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 1438 | 14591 | 27665 | 7.01 | 1.0E-14 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 2057 | 15198 | 28312 | 8.9 | 1.0E-14 | L44140.1 | NT | Homo sapiens chromosome X region from filamin (FLN) gene to glucose-6-phosphate dehydrogenase (G6PD) gene, complete cds's |
| 2258 | 15391 | 28517 | 6.33 | 1.0E-14 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 2480 | 15607 | 28731 | 6.44 | 1.0E-14 | AF001689.1 | NT | Homo sapiens ribosomal protein L23A (RPL23A) gene, complete cds |
| 3010 | 16186 | 29210 | 1.41 | 1.0E-14 | P05227 | SWISSPROT | HISTIDINE-RICH PROTEIN PRECURSOR (CLONE PFHRP-II) |
| 3236 | 16410 | 29424 | 3.14 | 1.0E-14 | BF335227.1 | EST_HUMAN | RC2-CT0432-310700-013-a09_1 CT0432 Homo sapiens cDNA |
| 3236 | 16410 | 29425 | 3.14 | 1.0E-14 | BF335227.1 | EST_HUMAN | RC2-CT0432-310700-013-a09_1 CT0432 Homo sapiens cDNA |
| 3992 | 17149 | 30156 | 1.69 | 1.0E-14 | AA682994.1 | EST_HUMAN | ae89c12.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:971350 3' |
| 4596 | 17733 | 30713 | 2.01 | 1.0E-14 | AW275852.1 | EST_HUMAN | xq39h10.x1 NCI_CGAP_Lu28 Homo sapiens cDNA clone IMAGE:2753059 3' |
| 5930 | 19116 | 32429 | 1.98 | 1.0E-14 | AF126145.1 | NT | Bos taurus xenobiotic/medium-chain fatty acid:CoA ligase form XL-III mRNA, nuclear mRNA encoding mitochondrial protein, complete cds |
| 6813 | 25834 | 33371 | 10.9 | 1.0E-14 | 11437150 | NT | Homo sapiens prominin (mouse)-like 1 (PROML1), mRNA |
| 6813 | 25834 | 33372 | 10.9 | 1.0E-14 | 11437150 | NT | Homo sapiens prominin (mouse)-like 1 (PROML1), mRNA |
| 1607 | 14760 | 27839 | 1.81 | 9.0E-15 | 7427522 | NT | Homo sapiens protein tyrosine phosphatase, receptor type, T (PTPRT), mRNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2242 | 15376 | | 1.38 | 9.0E-15 | AF196779.1 | NT | Homo sapiens transcription factor IGHM enhancer 3, JM11 protein, JM4 protein, JM5 protein, T54 protein, JM10 protein, A4 differentiation-dependent protein, triple LIM domain protein 6, and synaptophysin genes, complete cds; and L-type calcium channel.a> |
| 7665 | 20732 | 34207 | 4.24 | 9.0E-15 | P21416 | SWISSPROT | GAG POLYPROTEIN [CONTAINS: CORE PROTEINS P15, P12, P30, P10] |
| 8206 | 21288 | 34810 | 1.24 | 9.0E-15 | BE903559.1 | EST_HUMAN | 601677750F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3960156 5' |
| 13099 | 25716 | | 2.87 | 9.0E-15 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 2872 | 13687 | | 1.53 | 8.0E-15 | BE261482.1 | EST_HUMAN | 601148632F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3164023 5' |
| 7331 | 20412 | 33874 | 1.13 | 7.0E-16 | BF036327.1 | EST_HUMAN | 601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 10650 | 23684 | | 2.34 | 7.0E-15 | AW241958.1 | EST_HUMAN | xn77d02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2700483 3' similar to contains THR.t2 THR repetitive element ; |
| 12270 | 25203 | | 1.44 | 7.0E-15 | AA284465.1 | EST_HUMAN | zs57d08.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:701583 5' similar to gb:L21934 STEROL O-ACYLTRANSFERASE (HUMAN);contains L1.t1 L1 repetitive element ; |
| 1018 | 14189 | 27250 | 7.51 | 6.0E-15 | AJ271736.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 2/2 |
| 5263 | 18382 | | 0.98 | 6.0E-15 | AW901258.1 | EST_HUMAN | CM4-NN1011-100300-110-d10 NN1011 Homo sapiens cDNA |
| 6041 | 19224 | 32546 | 1.02 | 6.0E-15 | X73462.1 | NT | O.aries mRNA for hair keratin cysteine-rich protein |
| 6041 | 19224 | 32547 | 1.02 | 6.0E-15 | X73462.1 | NT | O.aries mRNA for hair keratin cysteine-rich protein |
| 11583 | 26231 | | 1.54 | 6.0E-15 | AW836843.1 | EST_HUMAN | QV1-LT0036-150200-070-c10 LT0036 Homo sapiens cDNA |
| 423 | 13618 | 26658 | 3.57 | 5.0E-15 | AL163208.2 | NT | Homo sapiens chromosome 21 segment HS21C008 |
| 2819 | 15933 | 29044 | 1.76 | 5.0E-15 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, RoRet gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| 5233 | 18355 | | 0.91 | 5.0E-15 | P11369 | SWISSPROT | RETROVIRUS-RELATED POL POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; ENDONUCLEASE] |
| 440 | 13240 | 26240 | 2.33 | 4.0E-15 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 6804 | 19959 | 33369 | 0.9 | 4.0E-15 | AB007970.1 | NT | Homo sapiens mRNA, chromosome 1 specific transcript KIAA0501 |
| 11316 | 21065 | 34577 | 2.11 | 4.0E-15 | AJ130894.1 | NT | Homo sapiens mRNA for transcription factor |
| 11316 | 21066 | 34578 | 2.11 | 4.0E-16 | AJ130894.1 | NT | Homo sapiens mRNA for transcription factor |
| 4333 | 17476 | | 7.67 | 3.0E-15 | N89452.1 | EST_HUMAN | LY1142F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone LY1142 5' similar to ANF(CARDIODILATIN) |
| 5141 | 18264 | 31232 | 0.67 | 3.0E-15 | AA078097.1 | EST_HUMAN | 7P01F03 Chromosome 7 Placental cDNA Library Homo sapiens cDNA clone 7P01F03 |
| 5141 | 18264 | 31233 | 0.67 | 3.0E-16 | AA078097.1 | EST_HUMAN | 7P01F03 Chromosome 7 Placental cDNA Library Homo sapiens cDNA clone 7P01F03 |
| 6953 | 20266 | | 1.11 | 3.0E-15 | Q64625 | SWISSPROT | GLUTATHIONE PEROXIDASE RY2D1 PRECURSOR (ODORANT-METABOLIZING PROTEIN RY2D1) |
| 7430 | 20507 | 33978 | 3.13 | 3.0E-15 | M27685.1 | NT | Mus musculus ultra high sulfur keratin gene, complete cds |
| 7430 | 20507 | 33979 | 3.13 | 3.0E-15 | M27685.1 | NT | Mus musculus ultra high sulfur keratin gene, complete cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10129 | 23167 | | 2.38 | 3.0E-15 | AA807128.1 | EST_HUMAN | oc36a07.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1351764 3' similar to contains MER19.t1 MER19 repetitive element ; |
| 11033 | 24112 | 37748 | 8.11 | 3.0E-15 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 12620 | 26081 | | 65.8 | 3.0E-15 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 260 | 13479 | 26511 | 3.71 | 2.0E-15 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 379 | 13587 | 26621 | 3.28 | 2.0E-15 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 379 | 13587 | 26622 | 3.28 | 2.0E-15 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 1559 | 14712 | | 0.99 | 2.0E-15 | 8923201 | NT | Homo sapiens hypothetical protein FLJ20212 (FLJ20212), mRNA |
| 3599 | 16763 | 29778 | 0.72 | 2.0E-15 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 3599 | 16763 | 29779 | 0.72 | 2.0E-15 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 4745 | 17880 | | 2.76 | 2.0E-15 | AI806335.1 | EST_HUMAN | wf07f06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2349923 3' similar to TR:Q61043 Q61043 NINEIN. ; |
| 6311 | 19483 | 32838 | 1.11 | 2.0E-15 | BE562352.1 | EST_HUMAN | 601344253F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3677268 5' |
| 6311 | 19483 | 32839 | 1.11 | 2.0E-15 | BE562352.1 | EST_HUMAN | 601344253F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3677268 5' |
| 7263 | 20346 | | 1.58 | 2.0E-15 | AJ400877.1 | NT | Homo sapiens ASCL3 gene, CEGP1 gene, C11orf14 gene, C11orf15 gene, C11orf16 gene and C11orf17 gene |
| 7421 | 20498 | 33969 | 2.73 | 2.0E-15 | AA704195.1 | EST_HUMAN | zj77e03.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:460924 3' |
| 7654 | 20626 | 34102 | 5.05 | 2.0E-15 | W05064.1 | EST_HUMAN | za78d10.r1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:298675 5' similar to WP:F44F4.8 CE02227 TRANSPOSASE ; |
| 9107 | 22186 | 35730 | 2.86 | 2.0E-15 | D14547.1 | NT | Human DNA, SINE repetitive element |
| 9273 | 22349 | 35899 | 0.91 | 2.0E-15 | AA397758.1 | EST_HUMAN | zt77g08.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:728414 5' |
| 9273 | 22349 | 35900 | 0.91 | 2.0E-15 | AA397758.1 | EST_HUMAN | zt77g08.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:728414 5' |
| 9604 | 22659 | 36231 | 1.18 | 2.0E-15 | AW379465.1 | EST_HUMAN | CM0-HT0244-201099-078-a12 HT0244 Homo sapiens cDNA |
| 9604 | 22659 | 36232 | 1.18 | 2.0E-15 | AW379465.1 | EST_HUMAN | CM0-HT0244-201099-078-a12 HT0244 Homo sapiens cDNA |
| 11077 | 24152 | | 3.69 | 2.0E-15 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 13016 | 16763 | 29778 | 3.89 | 2.0E-15 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 13016 | 16763 | 29779 | 3.89 | 2.0E-15 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 2834 | 15948 | | 3.09 | 1.0E-15 | AI689984.1 | EST_HUMAN | tx26h05.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2270745 3' similar to TR:Q13539 Q13539 MARINER TRANSPOSASE. ; |
| 3077 | 16253 | 29275 | 1.42 | 1.0E-15 | BE043584.1 | EST_HUMAN | hk40e02.y1 NCI_CGAP_Ov34 Homo sapiens cDNA clone IMAGE:2999162 5' |
| 3211 | 16385 | 29396 | 1.18 | 1.0E-15 | P08547 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 4479 | 17619 | 30601 | 0.61 | 1.0E-15 | BE182696.1 | EST_HUMAN | RC3-HT0649-100500-022-b05 HT0649 Homo sapiens cDNA |
| 6502 | 19668 | 33032 | 1.72 | 1.0E-15 | T95763.1 | EST_HUMAN | ye40e10.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:120234 3' similar to contains MER6 repetitive element ; |
| 7149 | 20284 | | 1.96 | 1.0E-15 | BE074217.1 | EST_HUMAN | QV3-BT0569-270100-074-g05 BT0569 Homo sapiens cDNA |
| 7184 | 20049 | 33460 | 0.79 | 1.0E-15 | P39057 | SWISSPROT | DYNEIN BETA CHAIN, CILIARY |
| 8427 | 21508 | 35040 | 0.99 | 1.0E-15 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 8615 | 21605 | 35232 | 4.94 | 1.0E-15 | AI200976.1 | EST_HUMAN | qf68h06.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1755227 3' |
| 8615 | 21695 | 35233 | 4.94 | 1.0E-15 | AI200976.1 | EST_HUMAN | qf68h06.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1755227 3' |
| 9239 | 22316 | 35858 | 0.78 | 1.0E-15 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 9242 | 22319 | 35862 | 0.96 | 1.0E-15 | 4507208 | NT | Homo sapiens spermidine synthase (SRM) mRNA |
| 9448 | 22564 | 36127 | 0.99 | 1.0E-15 | Q39575 | SWISSPROT | DYNEIN GAMMA CHAIN, FLAGELLAR OUTER ARM |
| 9832 | 22872 | 36455 | 0.94 | 1.0E-15 | AA864653.1 | EST_HUMAN | oh37c03.s1 NCI_CGAP_Kid6 Homo sapiens cDNA clone IMAGE:1459972 3' similar to contains L1.t3 L1 repetitive element ; |
| 11057 | 24134 | 37770 | 3.04 | 1.0E-15 | AF044083.1 | NT | Homo sapiens major histocompatibility locus class III region |
| 13104 | 25892 | 31856 | 13.05 | 1.0E-15 | AI783944.1 | EST_HUMAN | tr31c05.x1 NCI_CGAP_Ov23 Homo sapiens cDNA clone IMAGE:2219912 3' similar to contains Alu repetitive element; |
| 4626 | 17762 | 30744 | 0.93 | 9.0E-16 | 4503168 | NT | Homo sapiens cut (Drosophila)-like 1 (CCAAT displacement protein) (CUTL1) mRNA |
| 11241 | 24310 | 37947 | 1.41 | 9.0E-16 | F08688.1 | EST_HUMAN | HSC23F051 normalized infant brain cDNA Homo sapiens cDNA clone c-23f05 |
| 11995 | 24980 | 38685 | 1.48 | 9.0E-16 | AI244341.1 | EST_HUMAN | qj76a02.x1 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1865354 3' similar to contains MER10.t3 MER10 repetitive element ; |
| 11995 | 24980 | 38686 | 1.48 | 9.0E-16 | AI244341.1 | EST_HUMAN | qj76a02.x1 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1865354 3' similar to contains MER10.t3 MER10 repetitive element ; |
| 5819 | 19009 | 32315 | 0.85 | 7.0E-16 | 4885120 | NT | Homo sapiens chemokine (C-C motif) receptor 8 (CCR8) mRNA |
| 7496 | 20571 | 34043 | 1.3 | 7.0E-16 | O88807 | SWISSPROT | PROTEIN-ARGININE DEIMINASE TYPE IV (PEPTIDYLARGININE DEIMINASE IV) (PAD-R4) (PEPTIDYLARGININE DEIMINASE TYPE ALPHA) |
| 7496 | 20571 | 34044 | 1.3 | 7.0E-16 | O88807 | SWISSPROT | PROTEIN-ARGININE DEIMINASE TYPE IV (PEPTIDYLARGININE DEIMINASE IV) (PAD-R4) (PEPTIDYLARGININE DEIMINASE TYPE ALPHA) |
| 13043 | 25995 | | 38.08 | 7.0E-16 | T94149.1 | EST_HUMAN | ye28c12.r1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:119062 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2208 | 15342 | | 9.12 | 6.0E-16 | AW972611.1 | EST_HUMAN | EST384702 MAGE resequences, MAGL Homo sapiens cDNA |
| 1522 | 14675 | 27757 | 0.96 | 5.0E-16 | AJ251154.1 | NT | Mus musculus olfactory receptor cluster, OR37A, OR37B, OR37C, OR37E genes and OR37D pseudogene |
| 2745 | 15862 | 28973 | 2.21 | 5.0E-16 | AA992176.1 | EST_HUMAN | ot80c04.s1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1623078 3' similar to contains element L1 repetitive element ; |
| 11809 | 24799 | 38498 | 2.68 | 5.0E-16 | BF217368.1 | EST_HUMAN | 601885734F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4104129 5' |
| 13152 | 25749 | | 14.15 | 5.0E-16 | 11418127 | NT | Homo sapiens GTP binding protein 1 (GTPBP1), mRNA |
| 2312 | 15444 | | 1.01 | 4.0E-16 | AB001523.1 | NT | Homo sapiens gene for TMEM1 and PWP2,complete and partial cds |
| 2453 | 15581 | 28708 | 2.87 | 4.0E-16 | AW797168.1 | EST_HUMAN | QV1-UM0036-200300-115-g02 UM0036 Homo sapiens cDNA |
| 2453 | 15581 | 28709 | 2.87 | 4.0E-16 | AW797168.1 | EST_HUMAN | QV1-UM0036-200300-115-g02 UM0036 Homo sapiens cDNA |
| 3546 | 16711 | 29722 | 5.29 | 4.0E-16 | Q16653 | SWISSPROT | MYELIN-OLIGODENDROCYTE GLYCOPROTEIN PRECURSOR |
| 4260 | 17405 | 30391 | 8.68 | 4.0E-16 | BE083875.1 | EST_HUMAN | PM4-BT0650-010400-002-g09 BT0650 Homo sapiens cDNA |
| 4260 | 17405 | 30392 | 8.68 | 4.0E-16 | BE083875.1 | EST_HUMAN | PM4-BT0650-010400-002-g09 BT0650 Homo sapiens cDNA |
| 5257 | 18377 | 31343 | 0.91 | 4.0E-16 | P08548 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 7890 | 20942 | 34448 | 42.68 | 4.0E-16 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 9495 | 22552 | 36114 | 0.72 | 4.0E-16 | 11423191 | NT | Homo sapiens hypothetical protein FLJ10024 (FLJ10024), mRNA |
| 12293 | 25218 | | 1.95 | 4.0E-16 | P08548 | SWISSPROT | LINE-1 REVERSE TRANSCRIPTASE HOMOLOG |
| 12381 | 25270 | | 8.66 | 4.0E-16 | C05947.1 | EST_HUMAN | C05947 Human pancreatic islet Homo sapiens cDNA clone hbc5355 |
| 12392 | 25277 | 32079 | 3.23 | 4.0E-16 | 6912469 | NT | Homo sapiens Grb2-associated binder 2 (KIAA0571), mRNA |
| 12682 | 25454 | | 1.33 | 4.0E-16 | R18591.1 | EST_HUMAN | yf96b11.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:30489 5' |
| 135 | 13361 | 26395 | 1.09 | 3.0E-16 | AW022862.1 | EST_HUMAN | df45c01.y1 Morton Fetal Cochlea Homo sapiens cDNA clone IMAGE:2486376 5' |
| 135 | 13361 | 26396 | 1.09 | 3.0E-16 | AW022862.1 | EST_HUMAN | df45c01.y1 Morton Fetal Cochlea Homo sapiens cDNA clone IMAGE:2486376 5' |
| 478 | 13673 | | 1.56 | 3.0E-16 | AL046445.1 | EST_HUMAN | DKFZp434P037_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434P037 5' |
| 488 | 13682 | | 2.33 | 3.0E-16 | AF135446.1 | NT | Homo sapiens TSX (TSX) pseudogene, exon 5 |
| 1483 | 14636 | 27720 | 2.73 | 3.0E-16 | Q28983 | SWISSPROT | ZONADHESIN PRECURSOR |
| 3041 | 16217 | 29237 | 4.71 | 3.0E-16 | P03200 | SWISSPROT | ENVELOPE GLYCOPROTEIN GP340 (MEMBRANE ANTIGEN) (MA) [CONTAINS: GLYCOPROTEIN GP220] |
| 4711 | 17846 | 30830 | 0.59 | 3.0E-16 | AW160828.1 | EST_HUMAN | au76b06.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2782163 5' similar to SW:KID1_MOUSE Q61751 RENAL TRANSCRIPTION FACTOR KID-1 ; |
| 5057 | 18185 | 31160 | 1.32 | 3.0E-16 | AV661393.1 | EST_HUMAN | AV661393 GLC Homo sapiens cDNA clone GLCGSA01 3' |
| 5392 | 18594 | | 0.99 | 3.0E-16 | AA077225.1 | EST_HUMAN | 7B10F02 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B10F02 |
| 5734 | 18927 | 32223 | 1.67 | 3.0E-16 | AF003529.1 | NT | Homo sapiens glypican 3 (GPC3) gene, partial cds and flanking repeat regions |
| 8858 | 21937 | 35473 | 4.25 | 3.0E-16 | AI002836.1 | EST_HUMAN | am98h05.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:1684185 3' similar to contains THR.b2 THR repetitive element ; |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10094 | 23132 | | 1.09 | 3.0E-16 | BF690617.1 | EST_HUMAN | 602246538F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4332032 5' |
| 10324 | 23359 | 36969 | 2.59 | 3.0E-16 | L78810.1 | NT | Homo sapiens ADP/ATP carrier protein (ANT-2) gene, complete cds |
| 13187 | 26171 | 31557 | 3.62 | 3.0E-16 | AL043268.2 | EST_HUMAN | DKFZp434L1623_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434L1623 5' |
| 994 | 14166 | | 1.03 | 2.0E-16 | AL163279.2 | NT | Homo sapiens chromosome 21 segment HS21C079 |
| 2459 | 15586 | | 0.96 | 2.0E-16 | AA621761.1 | EST_HUMAN | af06d04.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1030855 3' |
| 2753 | 15870 | | 1.14 | 2.0E-16 | J03061.1 | NT | Human SSAV-related endogenous retroviral LTR-like element |
| 4294 | 17437 | 30424 | 1.62 | 2.0E-16 | X89211.1 | NT | H.sapiens DNA for endogenous retroviral like element |
| 4603 | 17740 | 30718 | 1.27 | 2.0E-16 | AI208733.1 | EST_HUMAN | qg56f03.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1839197 3' similar to contains MER29.t3 MER29 repetitive element ; |
| 5299 | 18416 | 31385 | 0.64 | 2.0E-16 | BE061178.1 | EST_HUMAN | RC3-BT0046-131199-003-H12 BT0046 Homo sapiens cDNA |
| 6880 | 20032 | 33442 | 0.68 | 2.0E-16 | Q31125 | SWISSPROT | HISTIDINE-RICH PROTEIN KE4 |
| 7893 | 20946 | 34451 | 0.98 | 2.0E-16 | AI470723.1 | EST_HUMAN | tj16e11.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2141708 3' similar to contains element MER33 repetitive element ; |
| 8154 | 21236 | 34757 | 1.67 | 2.0E-16 | AI732837.1 | EST_HUMAN | nz47f06.x5 NCI_CGAP_Pr12 Homo sapiens cDNA clone IMAGE:1290947 similar to TR:O54849 O54849 HYPOTHETICAL 42.9 KD PROTEIN. [2] TR:O08905 ;contains MER7.t1 MER7 repetitive element ; |
| 8352 | 21433 | 34957 | 0.81 | 2.0E-16 | BE858026.1 | EST_HUMAN | 7f82h09.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:3303521 3' |
| 8352 | 21433 | 34958 | 0.81 | 2.0E-16 | BE858026.1 | EST_HUMAN | 7f82h09.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:3303521 3' |
| 8724 | 21804 | 35340 | 0.76 | 2.0E-16 | AW877214.1 | EST_HUMAN | CM4-PT0034-180200-506-a01 PT0034 Homo sapiens cDNA |
| 8724 | 21804 | 35341 | 0.76 | 2.0E-16 | AW877214.1 | EST_HUMAN | CM4-PT0034-180200-506-a01 PT0034 Homo sapiens cDNA |
| 189 | 13411 | 26438 | 2.28 | 1.0E-16 | AF200719.1 | NT | Homo sapiens pituitary tumor transforming gene protein (PTTG) gene, complete cds |
| 393 | 13630 | | 22.93 | 1.0E-16 | AA628592.1 | EST_HUMAN | af39g11.s1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1034084 3' similar to contains OFR.t2 OFR repetitive element ; |
| 2028 | 15169 | 28276 | 3.42 | 1.0E-16 | BF327942.1 | EST_HUMAN | QV0-BN0148-070700-293-a10 BN0148 Homo sapiens cDNA |
| 5839 | 19029 | 32335 | 0.6 | 1.0E-16 | AF163864.1 | NT | Homo sapiens SNCA isoform (SNCA) gene, complete cds, alternatively spliced |
| 6565 | 19727 | | 18 | 1.0E-16 | U45983.1 | NT | Homo sapiens CCR8 chemokine receptor (CMKBR8) gene, complete cds |
| 6704 | 19862 | 33252 | 2.96 | 1.0E-16 | Q02779 | SWISSPROT | MITOGEN-ACTIVATED PROTEIN KINASE KINASE KINASE 10 (MIXED LINEAGE KINASE 2) (PROTEIN KINASE MST) |
| 7726 | 19727 | | 5.39 | 1.0E-16 | U45983.1 | NT | Homo sapiens CCR8 chemokine receptor (CMKBR8) gene, complete cds |
| 9483 | 22540 | 36103 | 0.81 | 1.0E-16 | AW875651.1 | EST_HUMAN | QV2-PT0012-040400-124-e05 PT0012 Homo sapiens cDNA |
| 3832 | 16992 | 29994 | 2.08 | 9.0E-17 | AW900048.1 | EST_HUMAN | CM1-NN1003-200300-153-e01 NN1003 Homo sapiens cDNA |
| 6864 | 20016 | | 2.15 | 9.0E-17 | AI392964.1 | EST_HUMAN | tg22c11.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2109524 3' similar to contains MER28.t2 MER28 repetitive element ; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8299 | 21381 | | 3.56 | 9.0E-17 | AW150257.1 | EST_HUMAN | xg49g12.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2630950 3' similar to contains OFR.t2 OFR repetitive element ; |
| 10429 | 23464 | | 2.35 | 9.0E-17 | AF200719.1 | NT | Homo sapiens pituitary tumor transforming gene protein (PTTG) gene, complete cds |
| 1043 | 14209 | | 2.43 | 8.0E-17 | AW880701.1 | EST_HUMAN | QV0-OT0032-080300-155-d01 OT0032 Homo sapiens cDNA |
| 3998 | 17156 | | 0.78 | 8.0E-17 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 5701 | 25809 | 32187 | 4.09 | 8.0E-17 | BE172081.1 | EST_HUMAN | MR0-HT0559-060300-003-e04 HT0559 Homo sapiens cDNA |
| 7425 | 20502 | | 1.73 | 8.0E-17 | AV730759.1 | EST_HUMAN | AV730759 HTF Homo sapiens cDNA clone HTFAQB07 5' |
| 1487 | 14640 | | 2.58 | 7.0E-17 | 6753097 | NT | Mus musculus apolipoprotein B editing complex 2 (Apobec2), mRNA |
| 5438 | 18638 | | 3.11 | 7.0E-17 | AF216650.1 | NT | Homo sapiens putative MTAP (MTAP) mRNA, partial cds, alternatively spliced |
| 6826 | 19979 | 33387 | 7.91 | 7.0E-17 | AF229843.1 | NT | Mus musculus WNT-2 gene, partial cds; putative ankyrin-related protein and cystic fibrosis transmembrane conductance regulator (CFTR) genes, section 1 of 2 of the complete cds; and unknown gene |
| 208 | 13431 | 26463 | 5.62 | 6.0E-17 | AW983880.1 | EST_HUMAN | RC1-HN0003-220300-021-b04 HN0003 Homo sapiens cDNA |
| 6443 | 19610 | 32973 | 2.06 | 6.0E-17 | AW662772.1 | EST_HUMAN | hi81d04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2978695 3' similar to contains L1.t2 L1 repetitive element ; |
| 10499 | 23534 | 37144 | 0.54 | 6.0E-17 | P20138 | SWISSPROT | MYELOID CELL SURFACE ANTIGEN CD33 PRECURSOR (GP67) |
| 434 | 13234 | 26234 | 2.37 | 5.0E-17 | T64110.1 | EST_HUMAN | yc05h08.r1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:79839 5' |
| 7769 | 20818 | 34308 | 1.81 | 5.0E-17 | T81043.1 | EST_HUMAN | yd26b04.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:109327 5' |
| 9562 | 22704 | 36270 | 1.32 | 4.0E-17 | AW129165.1 | EST_HUMAN | xf20e04.x1 NCI_CGAP_Kid8 Homo sapiens cDNA clone IMAGE:2618622 3' similar to contains Alu repetitive element;contains MER19.b1 MER19 repetitive element ; |
| 11783 | 24773 | 38469 | 2.51 | 4.0E-17 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 12308 | 25226 | | 1.82 | 4.0E-17 | AI073546.1 | EST_HUMAN | ov45e04.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1640286 3' similar to TR:Q16530 Q16530 PMS3 MRNA ;contains MER10.t2 MER10 repetitive element ; |
| 2165 | 15300 | 28426 | 1.85 | 3.0E-17 | AW119123.1 | EST_HUMAN | xd89c09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2604784 3' |
| 3263 | 16437 | | 1.17 | 3.0E-17 | P35410 | SWISSPROT | MAS-RELATED G PROTEIN-COUPLED RECEPTOR MRG |
| 3732 | 16893 | 29897 | 1.91 | 3.0E-17 | BE326522.1 | EST_HUMAN | hw05b04.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3181999 3' |
| 3732 | 16893 | 29898 | 1.91 | 3.0E-17 | BE326522.1 | EST_HUMAN | hw05b04.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3181999 3' |
| 8463 | 21544 | 35074 | 1.12 | 3.0E-17 | N68451.1 | EST_HUMAN | za14b02.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:292491 3' similar to contains PTR5.t3 PTR5 repetitive element ; |
| 9903 | 22943 | 36528 | 5.19 | 3.0E-17 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 10591 | 23626 | 37234 | 0.72 | 3.0E-17 | BF327012.1 | EST_HUMAN | QV3-BN0047-270700-283-a12 BN0047 Homo sapiens cDNA |
| 10591 | 23626 | 37235 | 0.72 | 3.0E-17 | BF327012.1 | EST_HUMAN | QV3-BN0047-270700-283-a12 BN0047 Homo sapiens cDNA |
| 12268 | 25201 | | 4.2 | 3.0E-17 | 11417966 | NT | Homo sapiens SEC14 (S. cerevisiae)-like 2 (SEC14L2), mRNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 13165 | 25751 | | 1.23 | 3.0E-17 | AV720204.1 | EST_HUMAN | AV720204 GLC Homo sapiens cDNA clone GLCDIF08 5' |
| 363 | 13574 | 26605 | 2.65 | 2.0E-17 | AI270080.1 | EST_HUMAN | qt63a06.x1 NCI_CGAP_Eso2 Homo sapiens cDNA clone IMAGE:1959922 3' similar to contains Alu repetitive element; |
| 364 | 13574 | 26605 | 2.78 | 2.0E-17 | AI270080.1 | EST_HUMAN | qt63a06.x1 NCI_CGAP_Eso2 Homo sapiens cDNA clone IMAGE:1959922 3' similar to contains Alu repetitive element; |
| 1012 | 14184 | | 1.43 | 2.0E-17 | AA722932.1 | EST_HUMAN | zg81d04.s1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:399751 3' |
| 2518 | 15644 | 28765 | 2.59 | 2.0E-17 | Q28983 | SWISSPROT | ZONADHESIN PRECURSOR |
| 2518 | 15644 | 28766 | 2.59 | 2.0E-17 | Q28983 | SWISSPROT | ZONADHESIN PRECURSOR |
| 2996 | 16172 | 29191 | 6.96 | 2.0E-17 | P12036 | SWISSPROT | NEUROFILAMENT TRIPLET H PROTEIN (200 KDA NEUROFILAMENT PROTEIN) (NEUROFILAMENT HEAVY POLYPEPTIDE) (NF-H) |
| 5482 | 18681 | 31696 | 1.75 | 2.0E-17 | M27685.1 | NT | Mus musculus ultra high sulfur keratin gene, complete cds |
| 5482 | 18681 | 31697 | 1.75 | 2.0E-17 | M27685.1 | NT | Mus musculus ultra high sulfur keratin gene, complete cds |
| 6394 | 19563 | | 1.92 | 2.0E-17 | AF055066.1 | NT | Homo sapiens MHC class 1 region |
| 6619 | 19779 | | 1.39 | 2.0E-17 | AL134881.1 | EST_HUMAN | DKFZp762J0610_r1 762 (synonym: hmel2) Homo sapiens cDNA clone DKFZp762J0610 5' |
| 8006 | 21056 | 34568 | 0.89 | 2.0E-17 | AB037839.1 | NT | Homo sapiens mRNA for KIAA1418 protein, partial cds |
| 8276 | 21357 | 34876 | 1.24 | 2.0E-17 | Q95156 | SWISSPROT | OLFACTORY RECEPTOR-LIKE PROTEIN OLF3 |
| 8651 | 21731 | 35270 | 1.05 | 2.0E-17 | AA300640.1 | EST_HUMAN | EST13504 Testis tumor Homo sapiens cDNA 5' end similar to similar to glycogenin |
| 10073 | 23111 | 36716 | 2.71 | 2.0E-17 | BE299888.1 | EST_HUMAN | 600944690F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2960615 5' |
| 10108 | 23146 | 36744 | 3.53 | 2.0E-17 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 10108 | 23146 | 36745 | 3.53 | 2.0E-17 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 10466 | 23501 | 37114 | 5.02 | 2.0E-17 | D13391.1 | NT | Human CYP19 gene for aromatase cytochrome P-450, promoter region (containing two cis-acting transcriptional regulatory elements) |
| 10590 | 23625 | 37232 | 0.97 | 2.0E-17 | P98063 | SWISSPROT | BONE MORPHOGENETIC PROTEIN 1 PRECURSOR (BMP-1) |
| 10590 | 23625 | 37233 | 0.97 | 2.0E-17 | P98063 | SWISSPROT | BONE MORPHOGENETIC PROTEIN 1 PRECURSOR (BMP-1) |
| 10618 | 23652 | 37261 | 0.93 | 2.0E-17 | AI798902.1 | EST_HUMAN | we94b04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2348719 3' |
| 10618 | 23652 | 37262 | 0.93 | 2.0E-17 | AI798902.1 | EST_HUMAN | we94b04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2348719 3' |
| 769 | 13950 | 26999 | 2.79 | 1.0E-17 | P08183 | SWISSPROT | MULTIDRUG RESISTANCE PROTEIN 1 (P-GLYCOPROTEIN 1) |
| 1745 | 14894 | | 2.01 | 1.0E-17 | AJ271736.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 2/2 |
| 1807 | 14956 | 28050 | 4.83 | 1.0E-17 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 2184 | 15319 | 28445 | 2.05 | 1.0E-17 | P02461 | SWISSPROT | COLLAGEN ALPHA 1(III) CHAIN PRECURSOR |
| 2412 | 15542 | 28669 | 3.16 | 1.0E-17 | U79410.1 | NT | Homo sapiens thrombospondin 2 (THBS2) gene, promoter region and exons 1A and 1B |
| 3657 | 16820 | | 1.03 | 1.0E-17 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 4256 | 17401 | | 9.42 | 1.0E-17 | R09942.1 | EST_HUMAN | yf30e07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:128388 5' |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6791 | 19946 | 33344 | 1.62 | 1.0E-17 | AI185642.1 | EST_HUMAN | qe65b05.x1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:1743825 3' |
| 6791 | 19946 | 33346 | 1.62 | 1.0E-17 | AI185642.1 | EST_HUMAN | qe65b05.x1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:1743825 3' |
| 7238 | 20322 | 33766 | 1.33 | 1.0E-17 | Q16831 | SWISSPROT | URIDINE PHOSPHORYLASE (UDRPASE) |
| 8792 | 21871 | 35410 | 1.26 | 1.0E-17 | BE062744.1 | EST_HUMAN | QV0-BT0263-101299-072-d07 BT0263 Homo sapiens cDNA |
| 10210 | 23246 | 36836 | 1.04 | 1.0E-17 | AW996538.1 | EST_HUMAN | QV3-BN0046-220300-129-c10 BN0046 Homo sapiens cDNA |
| 11703 | 24700 | 38393 | 1.52 | 1.0E-17 | Q28824 | SWISSPROT | MYOSIN LIGHT CHAIN KINASE, SMOOTH MUSCLE (MLCK) [CONTAINS: TELOKIN] |
| 9698 | 22747 |  | 3.05 | 9.0E-18 | AI472167.1 | EST_HUMAN | tj88d03.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2148389 3' |
| 3886 | 17045 | 30044 | 2.14 | 8.0E-18 | 4758977 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type substrate 1 (PTPNS1) mRNA |
| 359 | 13570 | 26599 | 16.47 | 7.0E-18 | AW316976.1 | EST_HUMAN | xx10b04.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2837071 3' similar to gb:L20868 60S RIBOSOMAL PROTEIN L4 (HUMAN); |
| 359 | 13570 | 26600 | 16.47 | 7.0E-18 | AW316976.1 | EST_HUMAN | xx10b04.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2837071 3' similar to gb:L20868 60S RIBOSOMAL PROTEIN L4 (HUMAN); |
| 7601 | 20671 | 34146 | 1.09 | 7.0E-18 | AW887642.1 | EST_HUMAN | RC3-OT0091-170300-011-d03 OT0091 Homo sapiens cDNA |
| 12826 | 13570 | 26599 | 10.65 | 7.0E-18 | AW316976.1 | EST_HUMAN | xx10b04.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2837071 3' similar to gb:L20868 60S RIBOSOMAL PROTEIN L4 (HUMAN); |
| 12826 | 13570 | 26600 | 10.65 | 7.0E-18 | AW316976.1 | EST_HUMAN | xx10b04.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2837071 3' similar to gb:L20868 60S RIBOSOMAL PROTEIN L4 (HUMAN); |
| 3367 | 16539 | 29552 | 1.23 | 6.0E-18 | X71791.2 | NT | Rattus norvegicus partial Gdn/Pn-1 gene for glia-derived nexin/protease nexin I, enhancer region |
| 4868 | 18001 |  | 3.99 | 6.0E-18 | P52181 | SWISSPROT | PROTEIN-GLUTAMINE GAMMA-GLUTAMYLTRANSFERASE (TISSUE TRANSGLUTAMINASE) (TGASE C) (TGC) |
| 8444 | 21525 |  | 3.47 | 6.0E-18 | 11428155 | NT | Homo sapiens similar to high-mobility group (nonhistone chromosomal) protein 4 (H. sapiens) (LOC63446), mRNA |
| 8543 | 21624 | 35161 | 0.78 | 6.0E-18 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 9291 | 22367 | 35916 | 0.48 | 6.0E-18 | AI908256.1 | EST_HUMAN | RC-BT166-020499-014 BT166 Homo sapiens cDNA |
| 9291 | 22367 | 35917 | 0.48 | 6.0E-18 | AI908256.1 | EST_HUMAN | RC-BT166-020499-014 BT166 Homo sapiens cDNA |
| 11399 | 24460 | 38124 | 3.83 | 6.0E-18 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 11612 | 24664 | 38351 | 1.69 | 6.0E-18 | X87344.1 | NT | H.sapiens DMA, DMB, HLA-Z1, IPP2, LMP2, TAP1, LMP7, TAP2, DOB, DQB2 and RING8, 9, 13 and 14 genes |
| 12534 | 25364 | 32068 | 3.91 | 6.0E-18 | U87929.1 | NT | Human aconitate hydratase (ACO2) gene, exon 4 |
| 1171 | 14334 | 27390 | 12.48 | 5.0E-18 | AI280214.1 | EST_HUMAN | qm65g11.x1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:1893668 3' similar to contains Alu repetitive element; |
| 4433 | 17573 | 30555 | 0.59 | 5.0E-18 | 10946665 | NT | Mus musculus gasdermin (Gsdm), mRNA |
| 5387 | 18589 | 31561 | 1.29 | 5.0E-18 | AF087913.1 | NT | Human endogenous retrovirus HERV-P-T47D |
| 8917 | 21996 | 35535 | 3.47 | 5.0E-18 | BE143312.1 | EST_HUMAN | MR0-HT0161-221099-002-c06 HT0161 Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11223 | 24292 | 37932 | 3.43 | 5.0E-18 | 10242378 | NT | Homo sapiens lymphocyte activation-associated protein (LOC51088), mRNA |
| 11223 | 24292 | 37933 | 3.43 | 5.0E-18 | 10242378 | NT | Homo sapiens lymphocyte activation-associated protein (LOC51088), mRNA |
| 12675 | 25450 | | 6.29 | 5.0E-18 | AW867182.1 | EST_HUMAN | MR1-SN0035-060400-001-g11 SN0035 Homo sapiens cDNA |
| 13063 | 25696 | | 28.96 | 5.0E-18 | AV650547.1 | EST_HUMAN | AV650547 GLC Homo sapiens cDNA clone GLCCGA02 3' |
| 127 | 13355 | 26386 | 0.91 | 4.0E-18 | BE044076.1 | EST_HUMAN | ho36h04.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:3039511 3' similar to contains MER29.b3 MER29 repetitive element ; |
| 127 | 13355 | 26387 | 0.91 | 4.0E-18 | BE044076.1 | EST_HUMAN | ho36h04.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:3039511 3' similar to contains MER29.b3 MER29 repetitive element ; |
| 1754 | 14903 | 27998 | 52.62 | 4.0E-18 | AA621814.1 | EST_HUMAN | nq24f11.s1 NCI_CGAP_Co10 Homo sapiens cDNA clone IMAGE:1144845 3' similar to gb:M26326 KERATIN, TYPE I CYTOSKELETAL 18 (HUMAN); |
| 1938 | 15081 | | 1.05 | 4.0E-18 | AI738592.1 | EST_HUMAN | wi33h08.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:2392095 3' |
| 2274 | 15407 | 28536 | 1.26 | 4.0E-18 | Q06430 | SWISSPROT | N-ACETYLLACTOSAMINIDE BETA-1,6-N-ACETYLGLUCOSAMINYLTRANSFERASE (N-ACETYLGLUCOSAMINYLTRANSFERASE) (I-BRANCHING ENZYME) (IGNT) |
| 2274 | 15407 | 28537 | 1.26 | 4.0E-18 | Q06430 | SWISSPROT | N-ACETYLLACTOSAMINIDE BETA-1,6-N-ACETYLGLUCOSAMINYLTRANSFERASE (N-ACETYLGLUCOSAMINYLTRANSFERASE) (I-BRANCHING ENZYME) (IGNT) |
| 3892 | 17051 | 30050 | 0.61 | 4.0E-18 | AI681586.1 | EST_HUMAN | ar93b06.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2173139 3' similar to contains Alu repetitive element; |
| 5479 | 18678 | 31691 | 2.47 | 4.0E-18 | AI017565.1 | EST_HUMAN | ou23e06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1627138 3' |
| 5479 | 18678 | 31692 | 2.47 | 4.0E-18 | AI017565.1 | EST_HUMAN | ou23e06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1627138 3' |
| 8029 | 21112 | | 0.62 | 4.0E-18 | AA746811.1 | EST_HUMAN | nx64a08.s1 NCI_CGAP_Alv1 Homo sapiens cDNA clone IMAGE:1266998 similar to contains L1.t2 L1 repetitive element ; |
| 11254 | 24323 | 37964 | 7.59 | 4.0E-18 | AA371807.1 | EST_HUMAN | EST83633 Pituitary gland, subtracted (prolactin/growth hormone) II Homo sapiens cDNA 5' end similar to EST containing O family repeat |
| 872 | 14048 | 27114 | 3.81 | 3.0E-18 | AA814196.1 | EST_HUMAN | ob23h11.s1 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1324581 3' similar to SW:RS5_HUMAN P46782 40S RIBOSOMAL PROTEIN S5. ; |
| 953 | 14126 | 27187 | 2.25 | 3.0E-18 | BE088634.1 | EST_HUMAN | CM0-BT0690-210300-298-g07 BT0690 Homo sapiens cDNA |
| 4060 | 17216 | 30225 | 1.06 | 3.0E-18 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 6968 | 20196 | 33622 | 4.72 | 3.0E-18 | BE001671.1 | EST_HUMAN | PM0-BN0081-100300-001-b08 BN0081 Homo sapiens cDNA |
| 11167 | 24238 | 37869 | 1.99 | 3.0E-18 | BF218650.1 | EST_HUMAN | 601884856F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4103652 5' |
| 12832 | 25554 | | 4.55 | 3.0E-18 | AW022015.1 | EST_HUMAN | df31h12.y1 Morton Fetal Cochlea Homo sapiens cDNA clone IMAGE:2485126 5' |
| 261 | 13480 | 26512 | 4.2 | 2.0E-18 | AW836820.1 | EST_HUMAN | QV1-LT0036-150200-070-e07 LT0036 Homo sapiens cDNA |
| 1176 | 14339 | | 74.12 | 2.0E-18 | BE256097.1 | EST_HUMAN | 601114362F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3355044 5' |
| 3193 | 16368 | 29374 | 0.94 | 2.0E-18 | Q39575 | SWISSPROT | DYNEIN GAMMA CHAIN, FLAGELLAR OUTER ARM |

### Table 4
### Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5527 | 18724 | | 4.2 | 2.0E-18 | AA868610.1 | EST_HUMAN | ak53a07.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1409652 3' similar to TR:O14577 O14577 BAC CLONE RG114A06 FROM 7Q31, COMPLETE SEQUENCE. ; |
| 5623 | 18817 | 31886 | 3.51 | 2.0E-18 | D14547.1 | NT | Human DNA, SINE repetitive element |
| 5623 | 18817 | 31887 | 3.51 | 2.0E-18 | D14547.1 | NT | Human DNA, SINE repetitive element |
| 5999 | 19184 | | 1.64 | 2.0E-18 | BF347229.1 | EST_HUMAN | 602021164F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4156670 5' |
| 6294 | 19467 | 32820 | 0.91 | 2.0E-18 | X60459.1 | NT | Human IFNAR gene for interferon alpha/beta receptor |
| 6294 | 19467 | 32821 | 0.91 | 2.0E-18 | X60459.1 | NT | Human IFNAR gene for interferon alpha/beta receptor |
| 6408 | 19577 | 32938 | 0.9 | 2.0E-18 | BF352940.1 | EST_HUMAN | IL3-HT0619-220700-222-C12 HT0619 Homo sapiens cDNA |
| 6448 | 19615 | 32979 | 2.93 | 2.0E-18 | AW665853.1 | EST_HUMAN | hi94g01.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2979984 3' similar to contains MER19.t2 MER19 repetitive element ; |
| 7594 | 20665 | 34141 | 0.59 | 2.0E-18 | AA457619.1 | EST_HUMAN | aa89d11.r1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:838485 5' similar to TR:G61634 G61634 POLYPEPTIDE PR77 ; |
| 8341 | 21422 | 34947 | 0.6 | 2.0E-18 | BE439524.1 | EST_HUMAN | HTM1-160F1 HTM1 Homo sapiens cDNA |
| 10253 | 23288 | 36884 | 0.95 | 2.0E-18 | AW151673.1 | EST_HUMAN | xf67e10.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2623146 3' similar to contains MER10.t2 MER10 repetitive element ; |
| 10253 | 23288 | 36885 | 0.95 | 2.0E-18 | AW151673.1 | EST_HUMAN | xf67e10.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2623146 3' similar to contains MER10.t2 MER10 repetitive element ; |
| 11217 | 24286 | 37925 | 2.91 | 2.0E-18 | AW470791.1 | EST_HUMAN | ha33d06.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2875499 3' similar to contains THR.b3 THR repetitive element ; |
| 12031 | 25014 | 38716 | 4.46 | 2.0E-18 | AW151299.1 | EST_HUMAN | xg47e09.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2630728 3' similar to contains MER8.b2 MER8 repetitive element ; |
| 12465 | 14339 | | 12.67 | 2.0E-18 | BE256097.1 | EST_HUMAN | 601114352F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3355044 5' |
| 4537 | 17675 | | 0.75 | 1.0E-18 | T95406.1 | EST_HUMAN | ye43g05.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:120536 5' similar to contains L1 repetitive element ; |
| 5471 | 18671 | 31651 | 2.64 | 1.0E-18 | AV653405.1 | EST_HUMAN | AV653405 GLC Homo sapiens cDNA clone GLCDKE11 3' |
| 5688 | 18882 | 32174 | 3.08 | 1.0E-18 | D00099.1 | NT | Homo sapiens mRNA for Na,K-ATPase alpha-subunit, complete cds |
| 5688 | 18882 | 32175 | 3.08 | 1.0E-18 | D00099.1 | NT | Homo sapiens mRNA for Na,K-ATPase alpha-subunit, complete cds |
| 6584 | 19746 | 33128 | 1.31 | 1.0E-18 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 8637 | 21717 | 35254 | 1.05 | 1.0E-18 | AI148288.1 | EST_HUMAN | oz69d09.x1 Soares_senescent_fibroblasts_NbHSF Homo sapiens cDNA clone IMAGE:1680593 3' similar to contains L1.t1 L1 repetitive element ; |
| 10103 | 23141 | 36740 | 4.93 | 1.0E-18 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, RoRet gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| 12416 | 25294 | 32084 | 4.65 | 1.0E-18 | AF003529.1 | NT | Homo sapiens glypican 3 (GPC3) gene, partial cds and flanking repeat regions |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 559 | 13752 | 26780 | 5.1 | 9.0E-19 | AA281961.1 | EST_HUMAN | zt11d06.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:712811 5' similar to contains MER19.t2 MER19 repetitive element ; |
| 560 | 13752 | 26780 | 3.91 | 9.0E-19 | AA281961.1 | EST_HUMAN | zt11d06.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:712811 5' similar to contains MER19.t2 MER19 repetitive element ; |
| 8032 | 21115 | | 3.69 | 9.0E-19 | F08688.1 | EST_HUMAN | HSC23F051 normalized infant brain cDNA Homo sapiens cDNA clone c-23f05 |
| 8886 | 21965 | 35501 | 2.57 | 9.0E-19 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 8886 | 21965 | 35502 | 2.57 | 9.0E-19 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 11392 | 24453 | 38116 | 3.15 | 9.0E-19 | AB032969.1 | NT | Homo sapiens mRNA for KIAA1143 protein, partial cds |
| 12171 | 13752 | 26780 | 19.34 | 9.0E-19 | AA281961.1 | EST_HUMAN | zt11d06.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:712811 5' similar to contains MER19.t2 MER19 repetitive element ; |
| 1073 | 14239 | | 1.58 | 8.0E-19 | AW974902.1 | EST_HUMAN | EST387007 MAGE resequences, MAGN Homo sapiens cDNA |
| 8342 | 21423 | 34948 | 1.12 | 8.0E-19 | BE158936.1 | EST_HUMAN | MR0-HT0404-210200-001-g06 HT0404 Homo sapiens cDNA |
| 2319 | 15451 | 28583 | 1.74 | 7.0E-19 | 4758139 | NT | Homo sapiens DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 6 (RNA helicase, 54kD) (DDX6) mRNA |
| 6585 | 19747 | 33129 | 2.11 | 7.0E-19 | AF092090.1 | NT | Rattus norvegicus cp151 mRNA, partial cds |
| 7452 | 20529 | 34002 | 0.94 | 7.0E-19 | P26444 | SWISSPROT | BETA CRYSTALLIN A2 |
| 10216 | 23252 | 36841 | 0.54 | 7.0E-19 | AI344951.1 | EST_HUMAN | tb01c08.x1 NCI_CGAP_Lu26 Homo sapiens cDNA clone IMAGE:2052302 3' |
| 12316 | 26183 | | 1.72 | 7.0E-19 | AA705684.1 | EST_HUMAN | zi60b01.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:435145 3' |
| 3879 | 17038 | | 1.16 | 6.0E-19 | AW852930.1 | EST_HUMAN | PM0-CT0248-131099-001-g01 CT0248 Homo sapiens cDNA |
| 4686 | 17722 | 30705 | 1.56 | 6.0E-19 | P34986 | SWISSPROT | OLFACTORY RECEPTOR 6 (M50) |
| 4585 | 17722 | 30706 | 1.56 | 6.0E-19 | P34986 | SWISSPROT | OLFACTORY RECEPTOR 6 (M50) |
| 4921 | 18051 | | 1.2 | 6.0E-19 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 5978 | 19163 | 32483 | 5.17 | 5.0E-19 | Q00193 | SWISSPROT | ZONA PELLUCIDA SPERM-BINDING PROTEIN B PRECURSOR (ZONA PELLUCIDA GLYCOPROTEIN ZP-X) (RC55) |
| 6346 | 19516 | 32873 | 0.59 | 5.0E-19 | AW663302.1 | EST_HUMAN | hh77b06.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2968787 5' |
| 10639 | 23673 | 37283 | 1.18 | 5.0E-19 | AJ297699.1 | NT | Homo sapiens partial IL-12RB1 gene for IL-12 receptor beta1 chain, exon 14 |
| 11829 | 24818 | 38509 | 8.14 | 5.0E-19 | AW183725.1 | EST_HUMAN | xj87b02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2664171 3' similar to contains element MSR1 repetitive element ; |
| 13083 | 25895 | | 1.34 | 5.0E-19 | U66060.1 | NT | Human germline T-cell receptor beta chain TCRBV13S1, TCRBV6S8A2T, TCRBV5S6A3N2T, TCRBV13S6A2T, TCRBV6S9P, TCRBV5S3A2T, TCRBV13S8P, TCRBV6S3A1N1T, TCRBV5S2, TCRBV6S6A2T, TCRBV5S7P, TCRBV13S4, TCRBV6S2A1N1T, TCRBV5S4A2T, TCRBV6S4A1, TCRBV23S1A2T, TCRBV12> |
| 568 | 13760 | 26784 | 0.96 | 4.0E-19 | AB007970.1 | NT | Homo sapiens mRNA, chromosome 1 specific transcript KIAA0501 |
| 2747 | 15864 | 28975 | 1.15 | 4.0E-19 | BF697362.1 | EST_HUMAN | 602130910F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4287674 5' |

### Table 4

### Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5512 | 18710 | 31725 | 1.2 | 4.0E-19 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 3955 | 17113 | 30114 | 1.02 | 3.0E-19 | Q28997 | SWISSPROT | BETA-2 ADRENERGIC RECEPTOR |
| 3955 | 17113 | 30115 | 1.02 | 3.0E-19 | Q28997 | SWISSPROT | BETA-2 ADRENERGIC RECEPTOR |
| 4400 | 17643 | 30526 | 0.85 | 3.0E-19 | O43900 | SWISSPROT | LIM-ONLY PROTEIN 6 (TRIPLE LIM DOMAIN PROTEIN 6) |
| 4400 | 17543 | 30527 | 0.85 | 3.0E-19 | O43900 | SWISSPROT | LIM-ONLY PROTEIN 6 (TRIPLE LIM DOMAIN PROTEIN 6) |
| 4569 | 17707 | 30686 | 1.42 | 3.0E-19 | AV708136.1 | EST_HUMAN | AV708136 ADC Homo sapiens cDNA clone ADCAMA11 5' |
| 5394 | 18596 |  | 0.69 | 3.0E-19 | AF223467.1 | NT | Homo sapiens NPD008 protein (NPD008) mRNA, complete cds |
| 7543 | 20615 |  | 1.88 | 3.0E-19 | 11432214 | NT | Homo sapiens similar to aldo-keto reductase family 1, member B11 (aldose reductase-like) (H. sapiens) (LOC63222), mRNA |
| 9658 | 21101 | 34614 | 1.09 | 3.0E-19 | X89685.1 | NT | M.musculus mRNA for TPCR33 protein |
| 12563 | 25385 |  | 16.36 | 3.0E-19 | AF165520.1 | NT | Homo sapiens phorbolin I protein (PBI) mRNA, complete cds |
| 2627 | 15750 | 28865 | 20.06 | 2.0E-19 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 4568 | 17706 |  | 1.34 | 2.0E-19 | AI311783.1 | EST_HUMAN | qo91e02.x1 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1915898 3' similar to TR:Q69386 Q69386 POL/ENV GENE ; |
| 6179 | 19365 | 32703 | 0.81 | 2.0E-19 | AV731382.1 | EST_HUMAN | AV731382 HTF Homo sapiens cDNA clone HTFAZC06 5' |
| 7493 | 20568 | 34040 | 0.63 | 2.0E-19 | 7657286 | NT | Mus musculus keratin-associated protein 9-1 (Krtap9-1), mRNA |
| 8525 | 21606 | 35145 | 10.24 | 2.0E-19 | AA012854.1 | EST_HUMAN | ze34c09.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:360880 5' |
| 10113 | 23151 | 36753 | 0.64 | 2.0E-19 | Q95155 | SWISSPROT | OLFACTORY RECEPTOR-LIKE PROTEIN OLF2 |
| 494 | 13689 |  | 1.86 | 1.0E-19 | BE408611.1 | EST_HUMAN | 601304125F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638310 5' |
| 2233 | 15367 | 28496 | 1.64 | 1.0E-19 | H30795.1 | EST_HUMAN | yo79g07.r1 Soares adult brain N2b4HB55Y Homo sapiens cDNA clone IMAGE:184188 5' similar to contains MER10 repetitive element ; |
| 2782 | 15898 |  | 2.4 | 1.0E-19 | D38044.1 | NT | Human gene for Ah-receptor, exon 7-9 |
| 2909 | 16087 |  | 6.72 | 1.0E-19 | 4758977 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type substrate 1 (PTPNS1) mRNA |
| 3488 | 16655 | 29669 | 1.18 | 1.0E-19 | AA834967.1 | EST_HUMAN | aj49b12.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1393631 3' similar to contains MER37.t2 MER37 repetitive element ; |
| 5452 | 18652 | 31631 | 0.73 | 1.0E-19 | AI890866.1 | EST_HUMAN | wm91b08.x1 NCI_CGAP_Ut2 Homo sapiens cDNA clone IMAGE:2443287 3' similar to TR:Q16530 Q16530 PMS3 MRNA ; |
| 6199 | 19374 | 32725 | 2.6 | 1.0E-19 | U12186.1 | NT | Oryctolagus cuniculus sodium/dicarboxylate cotransporter mRNA, partial cds |
| 6337 | 26213 |  | 0.63 | 1.0E-19 | AA595527.1 | EST_HUMAN | nh22d03.s1 NCI_CGAP_Pr1 Homo sapiens cDNA clone IMAGE:953093 similar to contains L1.t1 L1 repetitive element ; |
| 7806 | 20862 | 34355 | 1.05 | 1.0E-19 | U08813.1 | NT | Oryctolagus cuniculus Na+/glucose cotransporter-related protein mRNA, complete cds |
| 7806 | 20862 | 34356 | 1.05 | 1.0E-19 | U08813.1 | NT | Oryctolagus cuniculus Na+/glucose cotransporter-related protein mRNA, complete cds |
| 7977 | 25856 |  | 0.75 | 1.0E-19 | AF200719.1 | NT | Homo sapiens pituitary tumor transforming gene protein (PTTG) gene, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8644 | 21724 | 35261 | 1.94 | 1.0E-19 | M64657.1 | NT | Rabbit phosphorylase kinase beta subunit mRNA, complete cds |
| 8939 | 22018 | | 2.72 | 1.0E-19 | T99920.1 | EST_HUMAN | ye72b02.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:123243 5' similar to contains OFR repetitive element ; |
| 9950 | 22989 | | 0.69 | 1.0E-19 | U60822.1 | NT | Human dystrophin (DMD) gene, exons 7, 8 and 9, and partial cds |
| 10390 | 23425 | 37032 | 25.12 | 1.0E-19 | AW812259.1 | EST_HUMAN | RC0-ST0174-191099-031-b05 ST0174 Homo sapiens cDNA |
| 10400 | 23435 | 37042 | 1.59 | 1.0E-19 | N44631.1 | EST_HUMAN | yy31e09.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:272872 5' |
| 11184 | 24253 | 37888 | 1.87 | 1.0E-19 | BE616026.1 | EST_HUMAN | 601279682F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3611493 5' |
| 6784 | 19939 | 33336 | 2.4 | 8.0E-20 | 7657286 | NT | Mus musculus keratin-associated protein 9-1 (Krtap9-1), mRNA |
| 6784 | 19939 | 33337 | 2.4 | 8.0E-20 | 7657286 | NT | Mus musculus keratin-associated protein 9-1 (Krtap9-1), mRNA |
| 7687 | 20752 | 34234 | 1.46 | 8.0E-20 | AI221371.1 | EST_HUMAN | qg86f09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1842089 3' |
| 7687 | 20752 | 34235 | 1.46 | 8.0E-20 | AI221371.1 | EST_HUMAN | qg86f09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1842089 3' |
| 3349 | 16521 | 29537 | 0.71 | 7.0E-20 | BF326455.1 | EST_HUMAN | PM4-AN0096-050900-003-a04 AN0096 Homo sapiens cDNA |
| 7134 | 18560 | 31474 | 5.66 | 7.0E-20 | AL138120.1 | EST_HUMAN | DKFZp547D092_r1 547 (synonym: hfbr1) Homo sapiens cDNA clone DKFZp547D092 5' |
| 8693 | 21773 | 35305 | 8.83 | 7.0E-20 | AA557657.1 | EST_HUMAN | nl46c04.s1 NCI_CGAP_Pr4 Homo sapiens cDNA clone IMAGE:1043718 similar to contains MER29.b2 MER29 repetitive element ; |
| 8693 | 21773 | 35306 | 8.83 | 7.0E-20 | AA557657.1 | EST_HUMAN | nl46c04.s1 NCI_CGAP_Pr4 Homo sapiens cDNA clone IMAGE:1043718 similar to contains MER29.b2 MER29 repetitive element ; |
| 12014 | 24998 | | 2.89 | 7.0E-20 | 6912633 | NT | Homo sapiens ribosomal protein L13a (RPL13A), mRNA |
| 3645 | 16808 | 29822 | 3.64 | 6.0E-20 | P39188 | SWISSPROT | ALU SUBFAMILY J SEQUENCE CONTAMINATION WARNING ENTRY |
| 4387 | 17530 | 30511 | 4.58 | 6.0E-20 | BE622434.1 | EST_HUMAN | 601441231F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3916231 5' |
| 4718 | 17853 | | 1.8 | 5.0E-20 | AV725123.1 | EST_HUMAN | AV725123 HTC Homo sapiens cDNA clone HTCBTA01 5' |
| 7264 | 20347 | 33799 | 1.42 | 5.0E-20 | AF075301.1 | EST_HUMAN | AF075301 Human fetal liver cDNA library Homo sapiens cDNA clone HA0250 |
| 8131 | 21213 | 34733 | 6.96 | 5.0E-20 | W90525.1 | EST_HUMAN | zh78d08.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:418191 3' similar to contains MER30.t1 MER30 repetitive element ; |
| 8131 | 21213 | 34734 | 6.96 | 5.0E-20 | W90525.1 | EST_HUMAN | zh78d08.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:418191 3' similar to contains MER30.t1 MER30 repetitive element ; |
| 8295 | 21377 | 34898 | 0.79 | 5.0E-20 | BE165980.1 | EST_HUMAN | MR3-HT0487-150200-113-g01 HT0487 Homo sapiens cDNA |
| 9035 | 22114 | 35657 | 1.28 | 5.0E-20 | AB028174.1 | NT | Mus musculus MMAN-g mRNA, complete cds |
| 9035 | 22114 | 35658 | 1.28 | 5.0E-20 | AB028174.1 | NT | Mus musculus MMAN-g mRNA, complete cds |
| 9644 | 21087 | | 1.13 | 5.0E-20 | O60809 | SWISSPROT | HYPOTHETICAL PROTEIN DJ845O24.1 |
| 1649 | 14802 | 27889 | 0.94 | 4.0E-20 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 5765 | 18957 | | 1.13 | 4.0E-20 | Q99880 | SWISSPROT | HISTONE H2B C (H2B/C) |
| 8110 | 21192 | | 5.61 | 4.0E-20 | AI874352.1 | EST_HUMAN | tz64g03.x1 NCI_CGAP_Ov35 Homo sapiens cDNA clone IMAGE:2293396 3' |
| 10717 | 23750 | 37357 | 1.13 | 4.0E-20 | AW937469.1 | EST_HUMAN | QV3-DT0043-090200-080-c04 DT0043 Homo sapiens cDNA |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2207 | 15341 | 28468 | 1.22 | 3.0E-20 | U03888.1 | NT | Human BXP21 gene |
| 4325 | 17468 | 30455 | 1.29 | 3.0E-20 | P23273 | SWISSPROT | OLFACTORY RECEPTOR-LIKE PROTEIN I14 |
| 4747 | 17882 | 30864 | 1.08 | 3.0E-20 | AA037616.1 | EST_HUMAN | zk36b12.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:484895 3' similar to contains L1.t3 L1 repetitive element ; |
| 9135 | 22214 |  | 2.69 | 3.0E-20 | D14547.1 | NT | Human DNA, SINE repetitive element |
| 10527 | 23562 | 37168 | 0.47 | 3.0E-20 | BF185264.1 | EST_HUMAN | 601843561F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4064343 5' |
| 10900 | 23984 |  | 1.59 | 3.0E-20 | P11369 | SWISSPROT | RETROVIRUS-RELATED POL POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; ENDONUCLEASE] |
| 12331 | 25239 | 32109 | 6.09 | 3.0E-20 | BE888422.1 | EST_HUMAN | 601514180F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3915522 6' |
| 853 | 14030 |  | 5.66 | 2.0E-20 | AW303868.1 | EST_HUMAN | xr24e10.x1 NCI_CGAP_Ut4 Homo sapiens cDNA clone IMAGE:2761098 3' similar to SW:RS5_MOUSE P97461 40S RIBOSOMAL PROTEIN S5. ; |
| 1135 | 14300 | 27355 | 2.49 | 2.0E-20 | AA516335.1 | EST_HUMAN | ng69h09.s1 NCI_CGAP_Lip2 Homo sapiens cDNA clone IMAGE:940097 similar to TR:G1224066 G1224066 ORF2: FUNCTION UNKNOWN. ; |
| 1135 | 14300 | 27356 | 2.49 | 2.0E-20 | AA516335.1 | EST_HUMAN | ng69h09.s1 NCI_CGAP_Lip2 Homo sapiens cDNA clone IMAGE:940097 similar to TR:G1224066 G1224066 ORF2: FUNCTION UNKNOWN. ; |
| 2878 | 14030 |  | 5.32 | 2.0E-20 | AW303868.1 | EST_HUMAN | xr24e10.x1 NCI_CGAP_Ut4 Homo sapiens cDNA clone IMAGE:2761098 3' similar to SW:RS5_MOUSE P97461 40S RIBOSOMAL PROTEIN S5. ; |
| 5061 | 18189 | 31163 | 5.15 | 2.0E-20 | Q28983 | SWISSPROT | ZONADHESIN PRECURSOR |
| 5061 | 18189 | 31164 | 5.15 | 2.0E-20 | Q28983 | SWISSPROT | ZONADHESIN PRECURSOR |
| 5256 | 18376 |  | 0.9 | 2.0E-20 | 5174538 | NT | Homo sapiens malate dehydrogenase 1, NAD (soluble) (MDH1) mRNA |
| 8309 | 21391 | 34915 | 0.97 | 2.0E-20 | AA309457.1 | EST_HUMAN | EST180326 Liver III Homo sapiens cDNA 5' end |
| 9391 | 22466 | 36030 | 2.65 | 2.0E-20 | D10083.1 | NT | Homo sapiens RGH1 gene, retrovirus-like element |
| 9391 | 22466 | 36031 | 2.65 | 2.0E-20 | D10083.1 | NT | Homo sapiens RGH1 gene, retrovirus-like element |
| 12743 | 25878 | 31852 | 2.17 | 2.0E-20 | H55371.1 | EST_HUMAN | CHR220310 Chromosome 22 exon Homo sapiens cDNA clone C22_391 5' |
| 2070 | 15995 | 28327 | 6.61 | 1.0E-20 | AA281961.1 | EST_HUMAN | zt11d06.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:712811 5' similar to contains MER19.t2 MER19 repetitive element ; |
| 4560 | 17698 | 30679 | 1.02 | 1.0E-20 | BF115158.1 | EST_HUMAN | hr84b06.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3135155 3' similar to contains L1.t2 L1 repetitive element ; |
| 7034 | 20170 | 33592 | 0.74 | 1.0E-20 | AF049567.1 | EST_HUMAN | AF049567 Human activated dendritic cell mRNA Homo sapiens cDNA clone GA05 |
| 9364 | 22439 | 35998 | 2.08 | 1.0E-20 | 11418491 | NT | Homo sapiens Autosomal Highly Conserved Protein (AHCP), mRNA |
| 11847 | 24836 | 38530 | 2.03 | 1.0E-20 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 12461 | 25323 |  | 2.91 | 1.0E-20 | AA420453.1 | EST_HUMAN | nc60g08.r1 NCI_CGAP_Pr1 Homo sapiens cDNA clone IMAGE:745694 similar to contains L1.t3 L1 repetitive element ; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2979 | 16155 | | 1.18 | 9.0E-21 | AJ003514.1 | EST_HUMAN | AJ003514 Selected chromosome 21 cDNA library Homo sapiens cDNA clone MPIpl12-8J21 |
| 12174 | 25135 | | 3.98 | 9.0E-21 | AW898189.1 | EST_HUMAN | RC3-NN0068-090500-021-b03 NN0068 Homo sapiens cDNA |
| 9011 | 22090 | | 0.98 | 8.0E-21 | AW674891.1 | EST_HUMAN | bb30a02.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2984714 5' similar to SW:NIAM_HUMAN O95169 NADH-UBIQUINONE OXIDOREDUCTASE ASHI SUBUNIT PRECURSOR ; |
| 11830 | 24819 | 38510 | 3.91 | 8.0E-21 | AA809411.1 | EST_HUMAN | ob71f06.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1336835 3' |
| 12345 | 25250 | | 3.8 | 8.0E-21 | O21330 | SWISSPROT | ATP SYNTHASE A CHAIN (PROTEIN 6) |
| 2130 | 15266 | 28385 | 3.85 | 7.0E-21 | P15800 | SWISSPROT | LAMININ BETA-2 CHAIN PRECURSOR (S-LAMININ) (LAMININ CHAIN B3) |
| 2130 | 15266 | 28386 | 3.85 | 7.0E-21 | P15800 | SWISSPROT | LAMININ BETA-2 CHAIN PRECURSOR (S-LAMININ) (LAMININ CHAIN B3) |
| 3792 | 16953 | 29958 | 1.36 | 7.0E-21 | AL163300.2 | NT | Homo sapiens chromosome 21 segment HS21C100 |
| 4369 | 17512 | | 6.29 | 7.0E-21 | AA046502.1 | EST_HUMAN | zk67a06.r1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:487858 5' |
| 6564 | 19726 | 33104 | 0.94 | 7.0E-21 | AL163218.2 | NT | Homo sapiens chromosome 21 segment HS21C018 |
| 8582 | 21663 | 35203 | 1.46 | 7.0E-21 | AJ277557.1 | NT | Homo sapiens dNT-2 gene for mitochondrial 5'(3')-deoxyribonucleotidase (dNT-2 gene), exons 1-5 |
| 8876 | 21954 | 35490 | 4.94 | 7.0E-21 | D14718.1 | NT | Human chromosomal protein HMG1 related gene |
| 10319 | 23354 | 36963 | 1.07 | 7.0E-21 | AW856922.1 | EST_HUMAN | RC0-CT0301-271199-031-F03 CT0301 Homo sapiens cDNA |
| 10934 | 24016 | 37648 | 1.94 | 7.0E-21 | AA723404.1 | EST_HUMAN | zg73d03.s1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:398981 3' similar to gb:M14338 VITAMIN K-DEPENDENT PROTEIN S PRECURSOR (HUMAN);contains THR.t3 OFR repetitive element ; |
| 4220 | 17369 | 30358 | 0.75 | 6.0E-21 | BE408611.1 | EST_HUMAN | 601304125F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638310 5' |
| 9336 | 22412 | | 1.39 | 6.0E-21 | BE162737.1 | EST_HUMAN | PM1-HT0454-080100-002-h09 HT0454 Homo sapiens cDNA |
| 947 | 14120 | 27181 | 1.34 | 5.0E-21 | 5902031 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type 21 (PTPN21), mRNA |
| 2354 | 15485 | 28617 | 1.23 | 5.0E-21 | AA928194.1 | EST_HUMAN | om23g03.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1541908 3' similar to TR:O02711 O02711 PRO-POL-DUTPASE POLYPROTEIN ; |
| 4483 | 17623 | 30604 | 3.21 | 5.0E-21 | BE968839.1 | EST_HUMAN | 601649871F1 NIH_MGC_74 Homo sapiens cDNA clone IMAGE:3933880 5' |
| 4809 | 14120 | 27181 | 1.16 | 5.0E-21 | 5902031 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type 21 (PTPN21), mRNA |
| 4923 | 18053 | 31039 | 8.33 | 5.0E-21 | 4885474 | NT | Homo sapiens melanoma antigen, family C, 1 (MAGEC1), mRNA |
| 6902 | 20217 | | 0.77 | 5.0E-21 | AW440864.1 | EST_HUMAN | he05e10.x1 NCI_CGAP_CML1 Homo sapiens cDNA clone IMAGE:2918154 3' |
| 7157 | 20291 | 33734 | 1 | 5.0E-21 | BE856505.1 | EST_HUMAN | 7f83d11.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:3303573 3' similar to contains OFR.t1 OFR repetitive element ; |
| 10801 | 23834 | 37457 | 0.54 | 5.0E-21 | Q91690 | SWISSPROT | ZINC FINGER PROTEIN GLI1 (GLI-1) |
| 10801 | 23834 | 37458 | 0.54 | 5.0E-21 | Q91690 | SWISSPROT | ZINC FINGER PROTEIN GLI1 (GLI-1) |
| 12259 | 25195 | | 1.28 | 5.0E-21 | AA393574.1 | EST_HUMAN | zt72c04.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:727878 5' |
| 1772 | 14921 | 28015 | 1.86 | 4.0E-21 | AA970713.1 | EST_HUMAN | oo86e08.s1 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1573094 3' similar to TR:Q16530 Q16530 PMS3 MRNA ;contains OFR.t1 OFR repetitive element ; |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7011 | 20147 | 33568 | 2.61 | 4.0E-21 | AB019576.1 | NT | Rattus norvegicus mRNA for rTIM, complete cds |
| 9983 | 23022 | 36614 | 0.82 | 4.0E-21 | U91328.1 | NT | Human hereditary haemochromatosis region, histone 2A-like protein gene, hereditary haemochromatosis (HLA-H) gene, RoRet gene, and sodium phosphate transporter (NPT3) gene, complete cds |
| 10010 | 23048 | 36642 | 0.51 | 4.0E-21 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 1884 | 15028 | 28135 | 1.1 | 3.0E-21 | AA218891.1 | EST_HUMAN | zq15d06.s1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:629771 3' |
| 2348 | 15479 | 28611 | 1.51 | 3.0E-21 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 3149 | 16324 | 29335 | 6.41 | 3.0E-21 | AJ007973.1 | NT | Homo sapiens LGMD2B gene |
| 5616 | 18810 | 31878 | 0.92 | 3.0E-21 | AJ277557.1 | NT | Homo sapiens dNT-2 gene for mitochondrial 5'(3')-deoxyribonucleotidase (dNT-2 gene), exons 1-5 |
| 5616 | 18810 | 31879 | 0.92 | 3.0E-21 | AJ277557.1 | NT | Homo sapiens dNT-2 gene for mitochondrial 5'(3')-deoxyribonucleotidase (dNT-2 gene), exons 1-5 |
| 5856 | 19046 |  | 0.9 | 3.0E-21 | AV661044.1 | EST_HUMAN | AV661044 GLC Homo sapiens cDNA clone GLCGOA10 3' |
| 6308 | 19480 |  | 2.74 | 3.0E-21 | BF184739.1 | EST_HUMAN | 601844465F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4064945 5' |
| 7215 | 20080 | 33493 | 7.52 | 3.0E-21 | BF361093.1 | EST_HUMAN | RC1-OT0083-100800-019-g08 OT0083 Homo sapiens cDNA |
| 9894 | 22934 | 36518 | 0.92 | 3.0E-21 | AW897760.1 | EST_HUMAN | CM1-NN0063-280400-203-h08 NN0063 Homo sapiens cDNA |
| 12879 | 26099 | 31665 | 3.58 | 3.0E-21 | AL163213.2 | NT | Homo sapiens chromosome 21 segment HS21C013 |
| 150 | 13375 |  | 24.5 | 2.0E-21 | BE163247.1 | EST_HUMAN | QV3-HT0458-170200-090-g12 HT0458 Homo sapiens cDNA |
| 958 | 14131 | 27189 | 0.61 | 2.0E-21 | AB007857.2 | NT | Homo sapiens mRNA for KIAA0397 protein, partial cds |
| 958 | 14131 | 27190 | 0.61 | 2.0E-21 | AB007857.2 | NT | Homo sapiens mRNA for KIAA0397 protein, partial cds |
| 1241 | 14400 |  | 3.03 | 2.0E-21 | BE064410.1 | EST_HUMAN | RC4-BT0311-141199-011-h06 BT0311 Homo sapiens cDNA |
| 2703 | 15821 | 28937 | 2.59 | 2.0E-21 | Q28983 | SWISSPROT | ZONADHESIN PRECURSOR |
| 2703 | 15821 | 28938 | 2.59 | 2.0E-21 | Q28983 | SWISSPROT | ZONADHESIN PRECURSOR |
| 5601 | 18796 | 31846 | 1.66 | 2.0E-21 | AI624582.1 | EST_HUMAN | ts30f03.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2230109 3' similar to TR:Q99854 Q99854 HYPOTHETICAL 51.1 KD PROTEIN ; |
| 5694 | 18888 | 32178 | 0.8 | 2.0E-21 | AA027211.1 | EST_HUMAN | ze97a12.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:366910 5' |
| 5694 | 18888 | 32179 | 0.8 | 2.0E-21 | AA027211.1 | EST_HUMAN | ze97a12.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:366910 5' |
| 6157 | 19333 | 32679 | 0.74 | 2.0E-21 | W44493.1 | EST_HUMAN | zc28h02.r1 Soares_senescent_fibroblasts_NbHSF Homo sapiens cDNA clone IMAGE:323667 5' |
| 8467 | 21548 | 35078 | 0.58 | 2.0E-21 | AJ010770.1 | NT | Homo sapiens hyperion gene, exons 1-50 |
| 8558 | 21639 | 35178 | 8.13 | 2.0E-21 | BE141785.1 | EST_HUMAN | QV0-HT0103-091199-050-g11 HT0103 Homo sapiens cDNA |
| 9023 | 22102 | 35642 | 3.27 | 2.0E-21 | AU136779.1 | EST_HUMAN | AU136779 PLACE1 Homo sapiens cDNA clone PLACE1005052 5' |
| 11313 | 24377 |  | 2.04 | 2.0E-21 | BE350127.1 | EST_HUMAN | ht09g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146256 3' similar to contains MER29.b3 MER29 repetitive element ; |
| 11599 | 24652 | 38335 | 2.88 | 2.0E-21 | BE973829.1 | EST_HUMAN | 601680636F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3951008 5' |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11599 | 24652 | 38336 | 2.88 | 2.0E-21 | BE973829.1 | EST_HUMAN | 601680636F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3951008 5' |
| 12572 | 25389 | | 6.44 | 2.0E-21 | AF176815.1 | NT | Homo sapiens putative 8-hydroxyguanine DNA glycosylase gene, complete cds |
| 1284 | 14440 | 27509 | 1.89 | 1.0E-21 | AA557657.1 | EST_HUMAN | nl46c04.s1 NCI_CGAP_Pr4 Homo sapiens cDNA clone IMAGE:1043718 similar to contains MER29.b2 MER29 repetitive element ; |
| 1434 | 14587 | | 4.93 | 1.0E-21 | AI601264.1 | EST_HUMAN | ar88d12.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2152343 3' |
| 6616 | 19776 | | 2.73 | 1.0E-21 | AL079752.1 | EST_HUMAN | DKFZp434I0830_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434I0830 5' |
| 7342 | 20422 | 33885 | 4.7 | 1.0E-21 | AI223104.1 | EST_HUMAN | qg47e05.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1838336 3' similar to gb:M64241 QM PROTEIN (HUMAN); |
| 10448 | 23483 | 37092 | 0.47 | 1.0E-21 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 10448 | 23483 | 37093 | 0.47 | 1.0E-21 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 10812 | 23845 | | 1.31 | 1.0E-21 | 5730038 | NT | Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA |
| 13014 | 25667 | | 1.67 | 1.0E-21 | AF046133.1 | NT | Homo sapiens chromosome Xp22 410-8 |
| 4530 | 17668 | 30654 | 2.38 | 9.0E-22 | AI702438.1 | EST_HUMAN | tz94a03.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2296204 3' similar to TR:Q15408 Q15408 NEUTRAL PROTEASE LARGE SUBUNIT ; |
| 8803 | 21882 | 35420 | 2.02 | 9.0E-22 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 8803 | 21882 | 35421 | 2.02 | 9.0E-22 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 11031 | 24110 | 37746 | 3.1 | 9.0E-22 | AV761874.1 | EST_HUMAN | AV761874 MDS Homo sapiens cDNA clone MDSCCG05 5' |
| 12007 | 24992 | 38696 | 1.39 | 9.0E-22 | AU140358.1 | EST_HUMAN | AU140358 PLACE2 Homo sapiens cDNA clone PLACE2000394 5' |
| 971 | 14144 | | 7.93 | 8.0E-22 | BE144748.1 | EST_HUMAN | CM0-HT0179-281099-076-h05 HT0179 Homo sapiens cDNA |
| 8080 | 21162 | | 3.36 | 8.0E-22 | AA046502.1 | EST_HUMAN | zk67e06.r1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:487858 5' |
| 682 | 13867 | 26898 | 3.78 | 7.0E-22 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 4398 | 17541 | 30522 | 3.27 | 7.0E-22 | Q61838 | SWISSPROT | ALPHA-2-MACROGLOBULIN PRECURSOR (ALPHA2M) |
| 5150 | 18272 | 31241 | 0.91 | 7.0E-22 | AB008681.1 | NT | Homo sapiens gene for activin receptor type IIB, complete cds |
| 8888 | 21967 | | 1.24 | 7.0E-22 | AF151054.1 | NT | Homo sapiens HSPC220 mRNA, complete cds |
| 9032 | 22111 | 35653 | 2.77 | 7.0E-22 | M78590.1 | EST_HUMAN | EST00738 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBCF07 |
| 9802 | 22842 | 36419 | 2.05 | 7.0E-22 | AF009660.1 | NT | Homo sapiens T cell receptor beta locus, TCRBV7S3A2 to TCRBV12S2 region |
| 8436 | 21517 | | 1.25 | 6.0E-22 | AW029123.1 | EST_HUMAN | wx05g07.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2542812 3' |
| 6646 | 19805 | 33192 | 3.27 | 5.0E-22 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 10525 | 23560 | 37167 | 2.98 | 5.0E-22 | U60822.1 | NT | Human dystrophin (DMD) gene, exons 7, 8 and 9, and partial cds |
| 12833 | 25555 | | 1.63 | 5.0E-22 | BF476511.1 | EST_HUMAN | naa27b06.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:3255898 3' similar to contains Alu repetitive element; |
| 3726 | 16887 | | 0.77 | 4.0E-22 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 8608 | 26224 | | 2.81 | 4.0E-22 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 10961 | 24042 | 37677 | 1.97 | 4.0E-22 | BF218030.1 | EST_HUMAN | 601882813F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4095434 5' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 13021 | 25672 | | 3.85 | 4.0E-22 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 981 | 14154 | | 1.34 | 3.0E-22 | AI469679.1 | EST_HUMAN | tm14h10.x1 NCI_CGAP_Co14 Homo sapiens cDNA clone IMAGE:2156611 3' similar to gb:L19593 HIGH AFFINITY INTERLEUKIN-8 RECEPTOR B (HUMAN);contains L1.t1 L1 repetitive element ; |
| 2636 | 15759 | 28873 | 1.33 | 3.0E-22 | AI859038.1 | EST_HUMAN | wl66b04.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2429839 3' similar to SW:RL21_HUMAN P46778 60S RIBOSOMAL PROTEIN L21. ; |
| 3763 | 16824 | | 1.65 | 3.0E-22 | D14718.1 | NT | Human chromosomal protein HMG1 related gene |
| 4922 | 18052 | 31038 | 3.18 | 3.0E-22 | AI090125.1 | EST_HUMAN | qb28c07.x1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:1697580 3' similar to contains MER12.t2 MER12 repetitive element ; |
| 8011 | 21061 | 34573 | 0.8 | 3.0E-22 | P11369 | SWISSPROT | RETROVIRUS-RELATED POL POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; ENDONUCLEASE] |
| 8425 | 21506 | | 1.11 | 3.0E-22 | BE156613.1 | EST_HUMAN | QV0-HT0368-090200-099-f12 HT0368 Homo sapiens cDNA |
| 8430 | 21511 | 35042 | 1.88 | 3.0E-22 | BE089841.1 | EST_HUMAN | RC5-BT0707-150300-021-H10 BT0707 Homo sapiens cDNA |
| 8555 | 21636 | 35172 | 1.14 | 3.0E-22 | X60660.1 | NT | R.rattus RY2G5 mRNA for a potential ligand-binding protein |
| 8555 | 21636 | 35173 | 1.14 | 3.0E-22 | X60660.1 | NT | R.rattus RY2G5 mRNA for a potential ligand-binding protein |
| 2008 | 15148 | | 4.04 | 2.0E-22 | N24942.1 | EST_HUMAN | yx73d05.s1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:267369 3' |
| 2590 | 15715 | 28833 | 1.72 | 2.0E-22 | P24916 | SWISSPROT | IMMEDIATE EARLY GENE 13 PROTEIN PRECURSOR |
| 3507 | 16674 | 29684 | 3.98 | 2.0E-22 | 8394043 | NT | Homo sapiens protein kinase, AMP-activated, gamma 3 non-catalytic subunit (PRKAG3), mRNA |
| 4341 | 17484 | 30466 | 1.41 | 2.0E-22 | AW817794.1 | EST_HUMAN | PM1-ST0262-261199-001-d12 ST0262 Homo sapiens cDNA |
| 5973 | 26814 | 32476 | 1.47 | 2.0E-22 | W39456.1 | EST_HUMAN | zc20f01.r1 Soares_senescent_fibroblasts_NbHSF Homo sapiens cDNA clone IMAGE:322873 5' similar to gb:X72308 MONOCYTE CHEMOTACTIC PROTEIN 3 PRECURSOR (HUMAN); |
| 6306 | 19478 | 32833 | 3.58 | 2.0E-22 | BF092116.1 | EST_HUMAN | RC0-TN0079-150900-025-h12 TN0079 Homo sapiens cDNA |
| 9904 | 22944 | 36529 | 1.78 | 2.0E-22 | AI276522.1 | EST_HUMAN | ql76h06.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1878299 3' similar to contains MER29.t3 MER29 repetitive element ; |
| 10001 | 23039 | 36630 | 0.85 | 2.0E-22 | AA715316.1 | EST_HUMAN | nv04h11.s1 NCI_CGAP_Pr22 Homo sapiens cDNA clone IMAGE:1219269 3' |
| 10001 | 23039 | 36631 | 0.85 | 2.0E-22 | AA715315.1 | EST_HUMAN | nv04h11.s1 NCI_CGAP_Pr22 Homo sapiens cDNA clone IMAGE:1219269 3' |
| 12056 | 25037 | 38745 | 1.52 | 2.0E-22 | AW418960.1 | EST_HUMAN | ha24f04.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2874655 3' |
| 12139 | 25656 | 31954 | 2.33 | 2.0E-22 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 1927 | 15070 | 28175 | 2.05 | 1.0E-22 | AW865517.1 | EST_HUMAN | PM4-SN0020-010400-009-h02 SN0020 Homo sapiens cDNA |
| 2651 | 15774 | 28887 | 2.36 | 1.0E-22 | U50871.1 | NT | Human familial Alzheimer's disease (STM2) gene, complete cds |
| 3497 | 16664 | 29676 | 1.53 | 1.0E-22 | D14547.1 | NT | Human DNA, SINE repetitive element |
| 7920 | 20971 | 34478 | 1.09 | 1.0E-22 | BE084667.1 | EST_HUMAN | MR0-BT0659-220200-002-h07 BT0659 Homo sapiens cDNA |
| 10776 | 23809 | 37432 | 1.05 | 1.0E-22 | AI365435.1 | EST_HUMAN | qz09b07.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2020981 3' similar to contains MER29.b2 MER29 repetitive element ; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO:. | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10776 | 23809 | 37433 | 1.05 | 1.0E-22 | AI365435.1 | EST_HUMAN | qz09b07.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2020981 3' similar to contains MER29.b2 MER29 repetitive element ; |
| 13078 | 25707 | | 12.31 | 9.0E-23 | AW802801.1 | EST_HUMAN | IL2-UM0076-070400-061-F11 UM0076 Homo sapiens cDNA |
| 3661 | 16824 | 29833 | 0.74 | 8.0E-23 | AF198349.1 | NT | Gallus gallus Dach2 protein (Dach2) mRNA, complete cds |
| 3385 | 16555 | | 2.21 | 7.0E-23 | AV647246.1 | EST_HUMAN | AV647246 GLC Homo sapiens cDNA clone GLCAWC07 3' |
| 11293 | 24359 | 38000 | 3.74 | 7.0E-23 | 5031952 | NT | Homo sapiens Not56 (D. melanogaster)-like protein (NOT56L) mRNA |
| 3520 | 16686 | | 1.83 | 6.0E-23 | AF199333.1 | NT | Rattus norvegicus RIM1B (Rim1B) mRNA, complete cds |
| 4383 | 17626 | 30507 | 1.15 | 6.0E-23 | AL163249.2 | NT | Homo sapiens chromosome 21 segment HS21C049 |
| 12283 | 25211 | 32097 | 4.93 | 6.0E-23 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 12283 | 25211 | 32098 | 4.93 | 6.0E-23 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 12483 | 25335 | 32058 | 3.18 | 6.0E-23 | AI209130.1 | EST_HUMAN | qg59c03.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1839460 3' similar to SW:MV10_MOUSE P23249 PROTEIN MOV-10. ; |
| 5560 | 18757 | 31796 | 4.01 | 5.0E-23 | U82671.2 | NT | Homo sapiens chromosome Xq28 melanoma antigen family A2a (MAGEA2A), melanoma antigen family A12 (MAGEA12), melanoma antigen family A2b (MAGEA2B), melanoma antigen family A3 (MAGEA3), caltractin (CALT), NAD(P)H dehydrogenase-like protein (NSDHL), and Li> |
| 6369 | 25824 | 32898 | 3.69 | 5.0E-23 | AF179818.1 | NT | Pongo pygmaeus olfactory receptor (PPY116) gene, partial cds |
| 7595 | 25824 | 32898 | 2.78 | 5.0E-23 | AF179818.1 | NT | Pongo pygmaeus olfactory receptor (PPY116) gene, partial cds |
| 6570 | 19732 | 33110 | 0.67 | 3.0E-23 | AL163227.2 | NT | Homo sapiens chromosome 21 segment HS21C027 |
| 6570 | 19732 | 33111 | 0.67 | 3.0E-23 | AL163227.2 | NT | Homo sapiens chromosome 21 segment HS21C027 |
| 8022 | 21105 | 34622 | 3.26 | 3.0E-23 | AA130165.1 | EST_HUMAN | zl35g09.r1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:503968 5' similar to contains MER29.t2 MER29 repetitive element ; |
| 9450 | 22566 | 36130 | 3.72 | 3.0E-23 | Z70664.1 | NT | Human endogenous retroviral element HC2 |
| 9450 | 22566 | 36131 | 3.72 | 3.0E-23 | Z70664.1 | NT | Human endogenous retroviral element HC2 |
| 10523 | 23558 | | 1.42 | 3.0E-23 | AW897927.1 | EST_HUMAN | RC3-NN0066-270400-011-h01 NN0066 Homo sapiens cDNA |
| 11372 | 24433 | | 1.35 | 3.0E-23 | AF280107.1 | NT | Homo sapiens cytochrome P450 polypeptide 43 (CYP3A43) gene, partial cds; cytochrome P450 polypeptide 4 (CYP3A4) and cytochrome P450 polypeptide 7 (CYP3A7) genes, complete cds; and cytochrome P450 polypeptide 5 (CYP3A5) gene, partial cds |
| 683 | 13868 | 26899 | 3.69 | 2.0E-23 | AJ289880.1 | NT | Homo sapiens KIAA0851 gene (partial), XT3 gene and LZTFL1 gene |
| 1166 | 15988 | | 3.46 | 2.0E-23 | M55270.1 | NT | Human matrix Gla protein (MGP) gene, complete cds |
| 2856 | 15970 | 29079 | 1 | 2.0E-23 | P22105 | SWISSPROT | TENASCIN-X PRECURSOR (TN-X) (HEXABRACHION-LIKE) |
| 2856 | 15970 | 29080 | 1 | 2.0E-23 | P22105 | SWISSPROT | TENASCIN-X PRECURSOR (TN-X) (HEXABRACHION-LIKE) |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3457 | 16624 | | 1.11 | 2.0E-23 | AI201458.1 | EST_HUMAN | qs73f11.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:1943757 3' similar to TR:Q13537 Q13537 MER37 TRANSPOSABLE ELEMENT, COMPLETE CONSENSUS SEQUENCE. ; |
| 3810 | 16970 | | 3.53 | 2.0E-23 | BE165980.1 | EST_HUMAN | MR3-HT0487-150200-113-g01 HT0487 Homo sapiens cDNA |
| 4085 | 17240 | 30246 | 4.43 | 2.0E-23 | H59931.1 | EST_HUMAN | yr16a02.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:205418 5' |
| 4085 | 17240 | 30247 | 4.43 | 2.0E-23 | H59931.1 | EST_HUMAN | yr16a02.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:205418 5' |
| 8057 | 21140 | | 5.28 | 2.0E-23 | AF280107.1 | NT | Homo sapiens cytochrome P450 polypeptide 43 (CYP3A43) gene, partial cds; cytochrome P450 polypeptide 4 (CYP3A4) and cytochrome P450 polypeptide 7 (CYP3A7) genes, complete cds; and cytochrome P450 polypeptide 5 (CYP3A5) gene, partial cds |
| 9044 | 22123 | 35665 | 0.95 | 2.0E-23 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 12265 | 25199 | | 6.7 | 2.0E-23 | M32658.1 | NT | Human alcohol dehydrogenase gamma subunit (ADH3) gene, exon 1 |
| 12844 | 25561 | | 3.68 | 2.0E-23 | AF009660.1 | NT | Homo sapiens T cell receptor beta locus, TCRBV7S3A2 to TCRBV12S2 region |
| 12983 | 26103 | | 2.3 | 2.0E-23 | AU133931.1 | EST_HUMAN | AU133931 OVARC1 Homo sapiens cDNA clone OVARC1000946 5' |
| 4650 | 17786 | 30769 | 1.57 | 1.0E-23 | AL163252.2 | NT | Homo sapiens chromosome 21 segment HS21C052 |
| 4888 | 18018 | | 5.42 | 1.0E-23 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 6861 | 20013 | | 3.27 | 1.0E-23 | BE378471.1 | EST_HUMAN | 601236455F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3608653 5' |
| 8551 | 21632 | 35169 | 4.61 | 1.0E-23 | AA448097.1 | EST_HUMAN | zw82c06.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:782698 5' similar to contains PTR5.t2 PTR5 repetitive element ; |
| 10909 | 23992 | 37625 | 2.19 | 1.0E-23 | BE409643.1 | EST_HUMAN | 601301762F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3636254 5' |
| 10909 | 23992 | 37626 | 2.19 | 1.0E-23 | BE409643.1 | EST_HUMAN | 601301762F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3636254 5' |
| 13082 | 26074 | 31654 | 1.35 | 1.0E-23 | AW901816.1 | EST_HUMAN | QV0-NN1020-170400-195-a11 NN1020 Homo sapiens cDNA |
| 566 | 13758 | | 1.67 | 9.0E-24 | AA663213.1 | EST_HUMAN | ab75a08.s1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:852758 3' similar to TR:E19822 E19822 CA PROTEIN. ; |
| 4771 | 17906 | 30888 | 1.12 | 8.0E-24 | P23269 | SWISSPROT | OLFACTORY RECEPTOR-LIKE PROTEIN I3 |
| 4771 | 17906 | 30889 | 1.12 | 8.0E-24 | P23269 | SWISSPROT | OLFACTORY RECEPTOR-LIKE PROTEIN I3 |
| 6578 | 19740 | 33121 | 0.95 | 8.0E-24 | 11422027 | NT | Homo sapiens capping protein (actin filament) muscle Z-line, alpha 2 (CAPZA2), mRNA |
| 3976 | 17133 | | 0.94 | 7.0E-24 | AW937954.1 | EST_HUMAN | QV0-DT0047-170200-122-a06 DT0047 Homo sapiens cDNA |
| 5281 | 18400 | | 16.79 | 7.0E-24 | AL039498.1 | EST_HUMAN | DKFZp434A2311_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434A2311 5' |
| 10876 | 23961 | | 1.61 | 7.0E-24 | AW303317.1 | EST_HUMAN | xv17f03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2813405 3' similar to contains Alu repetitive element;contains MER19.t2 MER19 repetitive element ; |
| 724 | 13906 | | 2.21 | 6.0E-24 | AB001421.1 | NT | Macaca fuscata mRNA for Testis-Specific Protein Y (TSPY), complete cds |
| 861 | 14038 | 27100 | 12.8 | 6.0E-24 | AL163249.2 | NT | Homo sapiens chromosome 21 segment HS21C049 |
| 4078 | 17234 | 30241 | 9.39 | 5.0E-24 | AJ229043.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22, segment 3/3 |
| 7935 | 20985 | 34493 | 1.27 | 5.0E-24 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4371 | 17614 | | 0.9 | 4.0E-24 | BF369469.1 | EST_HUMAN | RC0-GN0090-250900-022-h09 GN0090 Homo sapiens cDNA |
| 6052 | 19234 | 32559 | 2.77 | 4.0E-24 | AA594178.1 | EST_HUMAN | nn31h05.s1 NCI_CGAP_Gas1 Homo sapiens cDNA clone IMAGE:1085529 3' similar to SW:POL_MLVRK P31795 POL POLYPROTEIN ; |
| 8880 | 21959 | 35494 | 0.71 | 4.0E-24 | AW813711.1 | EST_HUMAN | RC3-ST0197-130100-014-f06 ST0197 Homo sapiens cDNA |
| 11454 | 24514 | 38182 | 2.05 | 4.0E-24 | BE544822.1 | EST_HUMAN | 601078812F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3464498 5' |
| 12669 | 25446 | 32054 | 4.02 | 4.0E-24 | AB029016.1 | NT | Homo sapiens mRNA for KIAA1093 protein, partial cds |
| 7229 | 20134 | 33551 | 0.73 | 3.0E-24 | U66061.1 | NT | Human germline T-cell receptor beta chain TCRBV17S1A1T, TCRBV2S1, TCRBV10S1P, TCRBV29S1P, TCRBV19S1P, TCRBV15S1, TCRBV11S1A1T, HVB relic, TCRBV28S1P, TCRBV34S1, TCRBV14S1, TCRBV3S1, TCRBV4S1A1T, TRY4, TRY5, TRY6, TRY7, TRY8, TCRBD1, TCRBJ1S1, TCRBJ1S2,> |
| 7229 | 20134 | 33552 | 0.73 | 3.0E-24 | U66061.1 | NT | Human germline T-cell receptor beta chain TCRBV17S1A1T, TCRBV2S1, TCRBV10S1P, TCRBV29S1P, TCRBV19S1P, TCRBV15S1, TCRBV11S1A1T, HVB relic, TCRBV28S1P, TCRBV34S1, TCRBV14S1, TCRBV3S1, TCRBV4S1A1T, TRY4, TRY5, TRY6, TRY7, TRY8, TCRBD1, TCRBJ1S1, TCRBJ1S2,> |
| 8618 | 21698 | | 2.94 | 3.0E-24 | AW614871.1 | EST_HUMAN | hh68c08.x1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2967950 3' similar to contains MER29.b2 MER29 repetitive element ; |
| 8673 | 21753 | | 1.24 | 3.0E-24 | AW962076.1 | EST_HUMAN | EST374149 MAGE resequences, MAGG Homo sapiens cDNA |
| 9665 | 22627 | 36198 | 3.79 | 3.0E-24 | AL163252.2 | NT | Homo sapiens chromosome 21 segment HS21C052 |
| 12756 | 25501 | 32034 | 1.34 | 3.0E-24 | BF127762.1 | EST_HUMAN | 601810449F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4053396 5' |
| 2422 | 15551 | 28678 | 2.55 | 2.0E-24 | AA167539.1 | EST_HUMAN | zp11f09.r1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:609161 5' |
| 3899 | 17058 | | 0.82 | 2.0E-24 | AW898189.1 | EST_HUMAN | RC3-NN0068-090500-021-b03 NN0068 Homo sapiens cDNA |
| 7515 | 26219 | | 0.63 | 2.0E-24 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 7643 | 20712 | 34191 | 0.9 | 2.0E-24 | AF086824.1 | NT | Mus musculus rho/rac-interacting citron kinase (Crik) mRNA, complete cds |
| 7648 | 20717 | 34194 | 0.58 | 2.0E-24 | AJ003536.1 | EST_HUMAN | AJ003536 Selected chromosome 21 cDNA library Homo sapiens cDNA clone MPIpl12-5H13 |
| 8938 | 22017 | 35559 | 3.81 | 2.0E-24 | AL119158.1 | EST_HUMAN | DKFZp761L1712_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761L1712 5' |
| 8977 | 22056 | | 0.9 | 2.0E-24 | H69214.1 | EST_HUMAN | yr92b09.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:212729 5' similar to contains MER28 repetitive element ; |
| 10058 | 23096 | 36698 | 1.06 | 2.0E-24 | AI521759.1 | EST_HUMAN | ti77a09.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2138008 3' |
| 10058 | 23096 | 36699 | 1.06 | 2.0E-24 | AI521759.1 | EST_HUMAN | ti77a09.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2138008 3' |
| 12580 | 26153 | | 21.43 | 2.0E-24 | M28877.1 | NT | Human O family dicpersed repeat element |
| 1731 | 14881 | 27972 | 4.81 | 1.0E-24 | 7706340 | NT | Homo sapiens CGI-127 protein (LOC51646), mRNA |
| 2738 | 15855 | | 1.65 | 1.0E-24 | AW820194.1 | EST_HUMAN | QV0-ST0294-100400-185-c10 ST0294 Homo sapiens cDNA |
| 3085 | 16261 | 29278 | 0.72 | 1.0E-24 | D86423.1 | NT | Mus musculus mRNA for HGT keratin, partial cds |
| 4385 | 17528 | | 1.93 | 1.0E-24 | AF143313.1 | NT | Homo sapiens PTEN (PTEN) gene, exon 2 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6531 | 19695 | 33068 | 1.13 | 1.0E-24 | 7106336 | NT | Mus musculus keratin complex-1, gene C29 (Krt1-c29), mRNA |
| 7720 | 20784 | 34272 | 4.85 | 1.0E-24 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 7907 | 20959 | 34465 | 5.07 | 1.0E-24 | BE144526.1 | EST_HUMAN | MR0-HT0166-271199-005-d09 HT0166 Homo sapiens cDNA |
| 8130 | 21212 | 34732 | 2.29 | 1.0E-24 | AW901164.1 | EST_HUMAN | CM0-NN1010-130300-281-d07 NN1010 Homo sapiens cDNA |
| 11999 | 24984 | 38689 | 1.37 | 9.0E-25 | 7706707 | NT | Homo sapiens putative secreted protein (SIG11), mRNA |
| 5111 | 18239 | 31206 | 2.7 | 7.0E-25 | AA483944.1 | EST_HUMAN | ne92e10.s1 NCI_CGAP_Kid1 Homo sapiens cDNA clone IMAGE:911754 similar to contains MER1.b2 MER1 repetitive element ; |
| 8413 | 21494 | 35025 | 3.7 | 7.0E-25 | AA468646.1 | EST_HUMAN | ne06a09.s1 NCI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:880408 3' similar to contains THR.b2 THR repetitive element ; |
| 12003 | 24988 | 38693 | 3.64 | 7.0E-25 | AA583540.1 | EST_HUMAN | nf25h06.s1 NCI_CGAP_Pr1 Homo sapiens cDNA clone IMAGE:914843 similar to SW:R14A_YEAST P36105 PROBABLE 60S RIBOSOMAL PROTEIN L14EA. ; |
| 7131 | 18557 |  | 5.04 | 6.0E-25 | W87623.1 | EST_HUMAN | zh65h07.r1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:416989 5' |
| 7899 | 20951 | 34458 | 11.72 | 6.0E-25 | 7305360 | NT | Mus musculus otogelin (Otog), mRNA |
| 1683 | 14835 | 27920 | 1.61 | 5.0E-25 | AW850271.1 | EST_HUMAN | IL3-CT0219-161199-031-D04 CT0219 Homo sapiens cDNA |
| 11696 | 24649 | 38333 | 3.12 | 5.0E-25 | AW979107.1 | EST_HUMAN | EST391217 MAGE resequences, MAGP Homo sapiens cDNA |
| 1478 | 14631 | 27716 | 2.66 | 4.0E-25 | T98107.1 | EST_HUMAN | ye56h04.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:121783 5' |
| 3489 | 16656 |  | 2.81 | 4.0E-25 | AW887671.1 | EST_HUMAN | PM3-OT0093-280200-001-g07 OT0093 Homo sapiens cDNA |
| 4436 | 17576 |  | 4.06 | 4.0E-25 | BE170957.1 | EST_HUMAN | QV3-HT0543-140400-149-e11 HT0543 Homo sapiens cDNA |
| 10144 | 23182 | 36779 | 0.83 | 4.0E-25 | AA383873.1 | EST_HUMAN | EST97317 Thymus I Homo sapiens cDNA 5' end similar to EST containing O family repeat |
| 2266 | 15389 | 28516 | 1.02 | 3.0E-25 | BE068922.1 | EST_HUMAN | RC5-BT0377-131299-031-F02 BT0377 Homo sapiens cDNA |
| 3396 | 16566 | 29581 | 3.12 | 3.0E-25 | 8923321 | NT | Homo sapiens hypothetical protein FLJ20344 (FLJ20344), mRNA |
| 3396 | 16566 | 29582 | 3.12 | 3.0E-25 | 8923321 | NT | Homo sapiens hypothetical protein FLJ20344 (FLJ20344), mRNA |
| 5015 | 18144 | 31119 | 0.7 | 3.0E-25 | P29622 | SWISSPROT | KALLISTATIN PRECURSOR (KALLIKREIN INHIBITOR) (PROTEASE INHIBITOR 4) |
| 8532 | 21613 | 35149 | 5.42 | 3.0E-25 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 11287 | 24353 | 37993 | 2.7 | 3.0E-25 | AA579013.1 | EST_HUMAN | nf30h10.s1 NCI_CGAP_Pr1 Homo sapiens cDNA clone IMAGE:915331 similar to contains L1.t1 L1 repetitive element ; |
| 1378 | 14533 | 27607 | 4.9 | 2.0E-25 | 5032158 | NT | Homo sapiens transducin (beta)-like 1 (TBL1) mRNA |
| 2382 | 15513 | 28641 | 7.33 | 2.0E-25 | BE888016.1 | EST_HUMAN | 601511530F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913087 5' |
| 2893 | 15731 | 28848 | 3.71 | 2.0E-25 | P17008 | SWISSPROT | 40S RIBOSOMAL PROTEIN S16 |
| 4307 | 17450 | 30436 | 1.61 | 2.0E-25 | P17008 | SWISSPROT | 40S RIBOSOMAL PROTEIN S16 |
| 4307 | 17450 | 30437 | 1.61 | 2.0E-25 | P17008 | SWISSPROT | 40S RIBOSOMAL PROTEIN S16 |
| 9967 | 23006 | 36601 | 2.13 | 2.0E-25 | AL449573.1 | EST_HUMAN | AL449573 Homo sapiens Testis (Stavrides GS) Homo sapiens cDNA |
| 375 | 13583 | 26617 | 0.81 | 1.0E-25 | AL040229.1 | EST_HUMAN | DKFZp434H0313_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434H0313 5' |
| 1277 | 14434 |  | 2.07 | 1.0E-25 | 9635487 | NT | Human endogenous retrovirus, complete genome |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4983 | 18112 | 31089 | 2.71 | 1.0E-25 | BE162737.1 | EST_HUMAN | PM1-HT0454-080100-002-h09 HT0454 Homo sapiens cDNA |
| 5298 | 18415 | 31383 | 1.16 | 1.0E-25 | 8923786 | NT | Homo sapiens HSPC059 protein (HSPC059), mRNA |
| 5298 | 18415 | 31384 | 1.16 | 1.0E-25 | 8923786 | NT | Homo sapiens HSPC059 protein (HSPC059), mRNA |
| 6697 | 19855 |  | 0.95 | 1.0E-25 | AA189080.1 | EST_HUMAN | zq45b06.s1 Stratagene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:632627 3' similar to contains Alu repetitive element; |
| 6936 | 25838 | 33686 | 2.95 | 1.0E-25 | AA582690.1 | EST_HUMAN | nn54h11.s1 NCI_CGAP_Kid6 Homo sapiens cDNA clone IMAGE:1087749 3' |
| 8098 | 21180 | 34698 | 3.56 | 1.0E-25 | AA709079.1 | EST_HUMAN | zf96g04.s1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:384822 3' similar to contains PTR5.t3 PTR5 repetitive element ; |
| 9746 | 22810 | 36388 | 1.32 | 1.0E-25 | X60660.1 | NT | R.rattus RY2G5 mRNA for a potential ligand-binding protein |
| 9746 | 22810 | 36389 | 1.32 | 1.0E-25 | X60660.1 | NT | R.rattus RY2G5 mRNA for a potential ligand-binding protein |
| 11212 | 24281 | 37920 | 3.11 | 1.0E-25 | U93163.1 | NT | Homo sapiens MAGE-B2 (MAGE-B2), MAGE-B3 (MAGE-B3), MAGE-B4 (MAGE-B4), and MAGE-B1 (MAGE-B1) genes, complete cds |
| 12280 | 25209 | 38364 | 1.62 | 1.0E-25 | D14547.1 | NT | Human DNA, SINE repetitive element |
| 12280 | 25209 | 38365 | 1.62 | 1.0E-25 | D14547.1 | NT | Human DNA, SINE repetitive element |
| 2553 | 15678 | 28802 | 1.94 | 9.0E-26 | AL163218.2 | NT | Homo sapiens chromosome 21 segment HS21C018 |
| 11252 | 24321 |  | 2.35 | 9.0E-26 | AI905368.1 | EST_HUMAN | QV-BT087-301298-006 BT087 Homo sapiens cDNA |
| 12140 | 25901 |  | 5.33 | 9.0E-26 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 5811 | 19001 |  | 1.51 | 8.0E-26 | D14547.1 | NT | Human DNA, SINE repetitive element |
| 1608 | 14761 | 27840 | 5.61 | 7.0E-26 | AF003528.1 | NT | Homo sapiens X-linked anhidroitic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 4089 | 17244 | 30251 | 1.68 | 7.0E-26 | X89211.1 | NT | H.sapiens DNA for endogenous retroviral like element |
| 4275 | 17420 | 30407 | 1.92 | 7.0E-26 | AW340153.1 | EST_HUMAN | hd02e12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2908366 3' |
| 5755 | 18947 | 32249 | 0.84 | 7.0E-26 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 11966 | 24951 |  | 6.85 | 7.0E-26 | AA115895.1 | EST_HUMAN | zn30d08.r1 Stratagene neuroepithelium NT2RAMI 937234 Homo sapiens cDNA clone IMAGE:548943 5' similar to gb:M14338 VITAMIN K-DEPENDENT PROTEIN S PRECURSOR (HUMAN); |
| 12901 | 25596 |  | 5.49 | 7.0E-26 | AW954559.1 | EST_HUMAN | EST366629 MAGE resequences, MAGC Homo sapiens cDNA |
| 2300 | 15432 | 28565 | 3.83 | 6.0E-26 | AF029308.1 | NT | Homo sapiens chromosome 9 duplication of the T cell receptor beta locus and trypsinogen gene families |
| 3427 | 16595 | 29611 | 0.69 | 6.0E-26 | AA206131.1 | EST_HUMAN | zq52h04.r1 Stratagene neuroepithelium (#937231) Homo sapiens cDNA clone IMAGE:645271 5' |
| 10763 | 23786 | 37400 | 0.62 | 6.0E-26 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 10753 | 23786 | 37401 | 0.62 | 6.0E-26 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 11979 | 24964 | 38666 | 2.15 | 6.0E-26 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 1204 | 14366 | 27426 | 0.89 | 6.0E-26 | AI708235.1 | EST_HUMAN | as38h08.x1 Barstead aorta HPLRB6 Homo sapiens cDNA clone IMAGE:2319519 3' similar to WP:F49C12.11 CE03371 ; |

Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1204 | 14366 | 27427 | 0.89 | 5.0E-26 | AI708235.1 | EST_HUMAN | as38h08.x1 Barstead aorta HPLRB6 Homo sapiens cDNA clone IMAGE:2319519 3' similar to WP:F49C12.11 CE03371 ; |
| 9612 | 22667 |  | 3.29 | 4.0E-26 | 7657670 | NT | Homo sapiens upstream binding transcription factor, RNA polymerase I (UBTF), mRNA |
| 10897 | 23981 | 37613 | 2.84 | 4.0E-26 | BE266187.1 | EST_HUMAN | 601191345F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3535210 5' |
| 11604 | 24657 | 38342 | 1.38 | 4.0E-26 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 1797 | 14946 | 28038 | 1.25 | 3.0E-26 | D14547.1 | NT | Human DNA, SINE repetitive element |
| 2059 | 15200 | 28314 | 1.14 | 3.0E-26 | AL045855.2 | EST_HUMAN | DKFZp434I066_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434I066 5' |
| 2088 | 15228 |  | 3.34 | 3.0E-26 | AA115895.1 | EST_HUMAN | zn30d08.r1 Stratagene neuroepithelium NT2RAMI 937234 Homo sapiens cDNA clone IMAGE:548943 5' similar to gb:M14338 VITAMIN K-DEPENDENT PROTEIN S PRECURSOR (HUMAN); |
| 3878 | 17037 | 30035 | 1.41 | 3.0E-26 | AA152464.1 | EST_HUMAN | zo30f10.r1 Stratagene colon (#937204) Homo sapiens cDNA clone IMAGE:588427 5' similar to TR:G695374 G695374 THYROID RECEPTOR INTERACTOR ; |
| 3878 | 17037 | 30036 | 1.41 | 3.0E-26 | AA152464.1 | EST_HUMAN | zo30f10.r1 Stratagene colon (#937204) Homo sapiens cDNA clone IMAGE:588427 5' similar to TR:G695374 G695374 THYROID RECEPTOR INTERACTOR ; |
| 7051 | 20104 | 33521 | 6.09 | 3.0E-26 | BF245458.1 | EST_HUMAN | 601864963F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4083278 5' |
| 11867 | 24855 | 38550 | 1.97 | 3.0E-26 | AW875651.1 | EST_HUMAN | QV2-PT0012-040400-124-e05 PT0012 Homo sapiens cDNA |
| 11867 | 24855 | 38551 | 1.97 | 3.0E-26 | AW875651.1 | EST_HUMAN | QV2-PT0012-040400-124-e05 PT0012 Homo sapiens cDNA |
| 11902 | 24890 | 38591 | 7.79 | 3.0E-26 | AA583173.1 | EST_HUMAN | nn37d05.s1 NCI_CGAP_GC5 Homo sapiens cDNA clone IMAGE:1086057 3' similar to contains OFR.t1 OFR repetitive element ; |
| 699 | 13882 | 26915 | 6.84 | 2.0E-26 | AL163282.2 | NT | Homo sapiens chromosome 21 segment HS21C082 |
| 1917 | 15060 |  | 3.07 | 2.0E-26 | AL038099.2 | EST_HUMAN | DKFZp566L171_s1 566 (synonym: hfkd2) Homo sapiens cDNA clone DKFZp566L171 3' |
| 3303 | 16477 | 29499 | 5.22 | 2.0E-26 | X86694.1 | NT | M.musculus mRNA for astrocytic phosphoprotein, PEA-15 |
| 10991 | 24070 |  | 1.93 | 2.0E-26 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 11493 | 24551 | 38226 | 2.96 | 2.0E-26 | AI801412.1 | EST_HUMAN | to89a01.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2185416 3' similar to contains Alu repetitive element;contains element MER20 MER20 repetitive element ; |
| 11704 | 24701 |  | 2.06 | 2.0E-26 | AF055066.1 | NT | Homo sapiens MHC class 1 region |
| 12389 | 25276 |  | 1.76 | 2.0E-26 | AB037859.1 | NT | Homo sapiens mRNA for KIAA1438 protein, partial cds |
| 12604 | 26088 | 31658 | 2.33 | 2.0E-26 | 11435947 | NT | Homo sapiens chromosome 12 open reading frame 3 (C12ORF3), mRNA |
| 139 | 13365 | 26398 | 8.96 | 1.0E-26 | BE170371.1 | EST_HUMAN | QV4-HT0538-020300-123-a02 HT0538 Homo sapiens cDNA |
| 2105 | 15244 | 28365 | 1.42 | 1.0E-26 | AL039363.2 | EST_HUMAN | DKFZp434H1910_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434H1910 5' |
| 2751 | 15868 |  | 6.28 | 1.0E-26 | AF261085.1 | NT | Homo sapiens glyceraldehyde-3-phosphate dehydrogenase (GADPH) mRNA, complete cds |
| 6980 | 20208 |  | 2.89 | 1.0E-26 | BE165980.1 | EST_HUMAN | MR3-HT0487-150200-113-g01 HT0487 Homo sapiens cDNA |
| 11131 | 24203 |  | 1.96 | 1.0E-26 | AL038487.1 | EST_HUMAN | DKFZp566C2146_r1 566 (synonym: hfkd2) Homo sapiens cDNA clone DKFZp566C2146 5' |
| 12655 | 26178 |  | 2.77 | 1.0E-26 | H55093.1 | EST_HUMAN | CHR220032 Chromosome 22 exon Homo sapiens cDNA clone C22_45 5' |
| 13175 | 25763 |  | 1.16 | 1.0E-26 | AW408742.1 | EST_HUMAN | UI-HF-BM0-adw-d-10-0-UI.r1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3063210 5' |

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7757 | 20816 | | 0.87 | 9.0E-27 | BF371227.1 | EST_HUMAN | RC6-FN0138-110800-022-A02 FN0138 Homo sapiens cDNA |
| 9503 | 22769 | | 5.02 | 9.0E-27 | U93163.1 | NT | Homo sapiens MAGE-B2 (MAGE-B2), MAGE-B3 (MAGE-B3), MAGE-B4 (MAGE-B4), and MAGE-B1 (MAGE-B1) genes, complete cds |
| 12143 | 25118 | | 6.5 | 9.0E-27 | BF445556.1 | EST_HUMAN | naa03c07.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:3253644 3' similar to contains OFR.t1 OFR repetitive element ; |
| 11 | 13249 | 26249 | 4.22 | 8.0E-27 | AI831462.1 | EST_HUMAN | wj49c04.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2406150 3' similar to contains THR.b2 THR repetitive element ; |
| 571 | 13763 | | 4.57 | 8.0E-27 | AL163227.2 | NT | Homo sapiens chromosome 21 segment HS21C027 |
| 1448 | 14601 | 27678 | 23.84 | 8.0E-27 | AW162737.1 | EST_HUMAN | au87h08.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2783295 3' similar to gb:K00558 TUBULIN ALPHA-1 CHAIN (HUMAN); |
| 1448 | 14601 | 27679 | 23.84 | 8.0E-27 | AW162737.1 | EST_HUMAN | au87h08.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2783295 3' similar to gb:K00558 TUBULIN ALPHA-1 CHAIN (HUMAN); |
| 2236 | 15369 | 28499 | 1.82 | 8.0E-27 | AW864776.1 | EST_HUMAN | PM2-SN0018-220300-002-a07 SN0018 Homo sapiens cDNA |
| 3254 | 16428 | 29446 | 1.8 | 8.0E-27 | P12236 | SWISSPROT | ADP,ATP CARRIER PROTEIN, LIVER ISOFORM T2 (ADP/ATP TRANSLOCASE 3) (ADENINE NUCLEOTIDE TRANSLOCATOR 3) (ANT 3) |
| 3434 | 16602 | 29621 | 0.75 | 8.0E-27 | AF181897.1 | NT | Homo sapiens WRN (WRN) gene, complete cds |
| 5812 | 19002 | 32308 | 1.07 | 8.0E-27 | AV732214.1 | EST_HUMAN | AV732214 HTF Homo sapiens cDNA clone HTFBCB06 5' |
| 7117 | 18543 | | 2.65 | 8.0E-27 | BE926560.1 | EST_HUMAN | MR4-BT0398-260800-204-d06 BT0398 Homo sapiens cDNA |
| 7192 | 20057 | 33467 | 2.49 | 8.0E-27 | N84970.1 | EST_HUMAN | J1751F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone J1751 5' similar to REPETITIVE ELEMENT L1 |
| 9410 | 22484 | 36048 | 1.63 | 8.0E-27 | AW857579.1 | EST_HUMAN | CM1-CT0315-091299-063-d07 CT0315 Homo sapiens cDNA |
| 9410 | 22484 | 36049 | 1.63 | 8.0E-27 | AW857579.1 | EST_HUMAN | CM1-CT0315-091299-063-d07 CT0315 Homo sapiens cDNA |
| 701 | 13884 | | 1.77 | 7.0E-27 | Z70664.1 | NT | Human endogenous retroviral element HC2 |
| 5201 | 18322 | | 2.19 | 7.0E-27 | AW629172.1 | EST_HUMAN | hi51h12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2975879 3' similar to TR:O76040 O76040 ORF2: FUNCTION UNKNOWN. ; |
| 9058 | 22137 | | 0.97 | 7.0E-27 | D86984.1 | NT | Human mRNA for KIAA0231 gene, partial cds |
| 10988 | 24067 | | 3.7 | 7.0E-27 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 10964 | 24045 | 37679 | 3.21 | 6.0E-27 | M26697.1 | NT | Human nucleolar protein (B23) mRNA, complete cds |
| 12094 | 25074 | 38781 | 1.55 | 6.0E-27 | U93163.1 | NT | Homo sapiens MAGE-B2 (MAGE-B2), MAGE-B3 (MAGE-B3), MAGE-B4 (MAGE-B4), and MAGE-B1 (MAGE-B1) genes, complete cds |
| 7954 | 21004 | | 0.73 | 5.0E-27 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 10442 | 23477 | 37081 | 3.21 | 5.0E-27 | BF666614.1 | EST_HUMAN | 602121491F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4278527 5' |
| 10442 | 23477 | 37082 | 3.21 | 5.0E-27 | BF666614.1 | EST_HUMAN | 602121491F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4278527 5' |
| 6883 | 20035 | 33444 | 1.65 | 4.0E-27 | 9910569 | NT | Mus musculus sperm tail associated protein (Stap), mRNA |

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8125 | 21207 | | 0.98 | 4.0E-27 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 8172 | 21254 | | 1.31 | 4.0E-27 | AF078779.1 | NT | Rattus norvegicus putative four repeat ion channel mRNA, complete cds |
| 9945 | 22984 | 36577 | 0.61 | 4.0E-27 | AW880859.1 | EST_HUMAN | QV0-OT0033-070300-152-b10 OT0033 Homo sapiens cDNA |
| 11903 | 24891 | 38592 | 2.62 | 4.0E-27 | X89211.1 | NT | H.sapiens DNA for endogenous retroviral like element |
| 13213 | 26080 | 31655 | 1.17 | 4.0E-27 | AL163279.2 | NT | Homo sapiens chromosome 21 segment HS21C079 |
| 2099 | 15239 | 28361 | 7.1 | 3.0E-27 | X60658.1 | NT | R.rattus RYA3 mRNA for a potential ligand-binding protein |
| 4386 | 17529 | 30510 | 1.55 | 3.0E-27 | BE071924.1 | EST_HUMAN | PM0-BT0527-090100-001-d11 BT0527 Homo sapiens cDNA |
| 5462 | 18662 | 31641 | 6.81 | 3.0E-27 | AA077705.1 | EST_HUMAN | 7B44C08 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B44C08 |
| 9505 | 22771 | 36342 | 3.49 | 3.0E-27 | BF035327.1 | EST_HUMAN | 601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 42 | 13280 | 26286 | 9.28 | 2.0E-27 | AF054187.1 | NT | Homo sapiens alpha NAC mRNA, complete cds |
| 1944 | 15087 | | 24.24 | 2.0E-27 | AA565345.1 | EST_HUMAN | nk01b10.s1 NCI_CGAP_Pr11 Homo sapiens cDNA clone IMAGE:1000699 similar to gb:M17886 60S ACIDIC RIBOSOMAL PROTEIN P1 (HUMAN); |
| 3178 | 16353 | | 13.34 | 2.0E-27 | AW629172.1 | EST_HUMAN | hi51h12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2975879 3' similar to TR:O76040 O76040 ORF2: FUNCTION UNKNOWN. ; |
| 3296 | 16470 | 29489 | 1.45 | 2.0E-27 | AF111167.2 | NT | Homo sapiens jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene |
| 3296 | 16470 | 29490 | 1.45 | 2.0E-27 | AF111167.2 | NT | Homo sapiens jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene |
| 6814 | 19967 | 33373 | 0.79 | 2.0E-27 | H02655.1 | EST_HUMAN | yj36e01.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:150840 5' similar to SP:HMGC_MOUSE Q02591 HOMEOBOX PROTEIN ; |
| 8282 | 21364 | 34883 | 1.17 | 2.0E-27 | AI866347.1 | EST_HUMAN | wl28g07.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2426268 3' |
| 9469 | 22526 | | 2.6 | 2.0E-27 | AA551527.1 | EST_HUMAN | nh08h05.s1 NCI_CGAP_Thy1 Homo sapiens cDNA clone IMAGE:943737 similar to contains L1.t3 L1 repetitive element ; |
| 9995 | 23033 | 36625 | 0.83 | 2.0E-27 | X60658.1 | NT | R.rattus RYA3 mRNA for a potential ligand-binding protein |
| 10241 | 23276 | 36868 | 1.45 | 2.0E-27 | M78590.1 | EST_HUMAN | EST00738 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBCF07 |
| 10241 | 23276 | 36869 | 1.45 | 2.0E-27 | M78590.1 | EST_HUMAN | EST00738 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBCF07 |
| 11197 | 24266 | 37901 | 3.61 | 2.0E-27 | AU121685.1 | EST_HUMAN | AU121685 MAMMA1 Homo sapiens cDNA clone MAMMA1000746 5' |
| 11777 | 15087 | | 6.43 | 2.0E-27 | AA565345.1 | EST_HUMAN | nk01b10.s1 NCI_CGAP_Pr11 Homo sapiens cDNA clone IMAGE:1000699 similar to gb:M17886 60S ACIDIC RIBOSOMAL PROTEIN P1 (HUMAN); |
| 12107 | 25087 | 38791 | 1.64 | 2.0E-27 | AF216650.1 | NT | Homo sapiens putative MTAP (MTAP) mRNA, partial cds, alternatively spliced |
| 449 | 13645 | | 2.34 | 1.0E-27 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 1021 | 14192 | 27251 | 4.97 | 1.0E-27 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 6674 | 19833 | 33222 | 6.51 | 1.0E-27 | 6005855 | NT | Homo sapiens Retina-derived POU-domain factor-1 (RPF-1), mRNA |

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|---|---|---|---|---|---|---|---|
| 7010 | 20146 | 33566 | 1.65 | 1.0E-27 | F30158.1 | EST_HUMAN | HSPD20461 HM3 Homo sapiens cDNA clone s4000095C10 |
| 7010 | 20146 | 33567 | 1.65 | 1.0E-27 | F30158.1 | EST_HUMAN | HSPD20461 HM3 Homo sapiens cDNA clone s4000095C10 |
| 8809 | 21888 | 35430 | 1.16 | 1.0E-27 | AB007923.1 | NT | Homo sapiens mRNA for KIAA0454 protein, partial cds |
| 9186 | 22264 | | 1.69 | 1.0E-27 | BE079780.1 | EST_HUMAN | RC6-BT0627-140200-011-E06 BT0627 Homo sapiens cDNA |
| 9923 | 22963 | 36551 | 2.65 | 1.0E-27 | D87449.1 | NT | Human mRNA for KIAA0260 gene, partial cds |
| 12005 | 24990 | 38694 | 3.05 | 1.0E-27 | AF111093.1 | NT | Bos taurus latrophilin 3 splice variant bbah mRNA, complete cds |
| 144 | 13368 | | 2.26 | 9.0E-28 | BE348399.1 | EST_HUMAN | hw17c11.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3183188 3' similar to TR:Q07314 Q07314 SECRETED NEUREXIN III-ALPHA-C PRECURSOR. [3] TR:Q07280 TR:Q07313 ; |
| 321 | 13535 | 26567 | 2.17 | 9.0E-28 | AU126260.1 | EST_HUMAN | AU126260 NT2RP1 Homo sapiens cDNA clone NT2RP1000443 5' |
| 10601 | 23636 | 37243 | 0.47 | 9.0E-28 | AA174078.1 | EST_HUMAN | zp18g12.s1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:609862 3' |
| 12224 | 25173 | | 3.04 | 9.0E-28 | BF377859.1 | EST_HUMAN | CM2-TN0140-070900-372-g01 TN0140 Homo sapiens cDNA |
| 12565 | 26003 | | 13.39 | 8.0E-28 | AW167571.1 | EST_HUMAN | au83h08.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2782911 3' similar to TR:O60302 O60302 KIAA0555 PROTEIN. ;contains element MER22 repetitive element ; |
| 1208 | 14370 | 27430 | 11.5 | 7.0E-28 | AU142750.1 | EST_HUMAN | AU142750 Y79AA1 Homo sapiens cDNA clone Y79AA1000824 5' |
| 11463 | 24522 | 38192 | 1.65 | 7.0E-28 | 11417866 | NT | Homo sapiens gamma-glutamyltransferase-like activity 1 (GGTLA1), mRNA |
| 12181 | 25141 | | 5.04 | 7.0E-28 | AV735348.1 | EST_HUMAN | AV735348 CB Homo sapiens cDNA clone CBFAKA12 5' |
| 9119 | 22198 | | 1.28 | 6.0E-28 | AF016052.1 | NT | Homo sapiens zinc finger protein ZNF191 (ZNF191) gene, complete cds |
| 12866 | 25577 | | 5.92 | 6.0E-28 | AA504562.1 | EST_HUMAN | aa60e03.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:825340 5' similar to contains Alu repetitive element;contains element PTR5 repetitive element ; |
| 328 | 13542 | | 2.75 | 5.0E-28 | AI921003.1 | EST_HUMAN | wo18c07.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2455692 3' similar to contains THR.b1 THR repetitive element ; |
| 4116 | 17270 | 30269 | 38.94 | 5.0E-28 | R79762.1 | EST_HUMAN | yi89f10.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:146443 5' |
| 2689 | 15809 | 28926 | 1.46 | 4.0E-28 | AW195066.1 | EST_HUMAN | xn33c09.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2695604 3' similar to SW:GG95_HUMAN Q08379 GOLGIN-95. ; |
| 3177 | 16352 | 29358 | 1.34 | 4.0E-28 | BE409100.1 | EST_HUMAN | 601300703F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3635305 5' |
| 7483 | 20558 | 34030 | 3.56 | 4.0E-28 | AI198941.1 | EST_HUMAN | qf66f10.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1755019 3' similar to gb:M19503 LINE-1 REVERSE TRANSCRIPTASE HOMOLOG (HUMAN); |
| 11105 | 24177 | | 4.19 | 4.0E-28 | AF029308.1 | NT | Homo sapiens chromosome 9 duplication of the T cell receptor beta locus and trypsinogen gene families |
| 11255 | 24324 | | 14.89 | 4.0E-28 | AB038241.1 | NT | Felis catus GAPDH mRNA for glyceraldehyde-3-phosphate dehydrogenase, complete cds |
| 11278 | 20558 | 34030 | 4.34 | 4.0E-28 | AI198941.1 | EST_HUMAN | qf66f10.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1755019 3' similar to gb:M19503 LINE-1 REVERSE TRANSCRIPTASE HOMOLOG (HUMAN); |
| 12622 | 25418 | | 1.7 | 4.0E-28 | AW854244.1 | EST_HUMAN | RC3-CT0254-240400-210-f12 CT0254 Homo sapiens cDNA |
| 12773 | 26069 | | 1.62 | 4.0E-28 | AW862360.1 | EST_HUMAN | RC0-CT0379-070100-031-h01 CT0379 Homo sapiens cDNA |

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|---|---|---|---|---|---|---|---|
| 1312 | 14468 | | 2.29 | 3.0E-28 | AF155382.1 | NT | Homo sapiens metalloprotease-like, disintegrin-like, cysteine-rich protein 2 epsilon (ADAM22) mRNA, complete cds |
| 5227 | 18349 | | 0.94 | 3.0E-28 | AF009660.1 | NT | Homo sapiens T cell receptor beta locus, TCRBV7S3A2 to TCRBV12S2 region |
| 9027 | 22106 | 35647 | 2.28 | 3.0E-28 | BF354030.1 | EST_HUMAN | MR3-HT0713-280500-013-f09 HT0713 Homo sapiens cDNA |
| 11176 | 24245 | 37878 | 2.09 | 3.0E-28 | U53588.1 | NT | Homo sapiens MHC class 1 region |
| 12653 | 25433 | | 3.77 | 3.0E-28 | AI831991.1 | EST_HUMAN | wj98f07.x1 NCI_CGAP_Lym12 Homo sapiens cDNA clone IMAGE:2410885 3' similar to contains Alu repetitive element;contains element HGR repetitive element ; |
| 12803 | 25536 | | 3.29 | 3.0E-28 | BE082801.1 | EST_HUMAN | RC2-BT0642-210200-013-f08 BT0642 Homo sapiens cDNA |
| 12865 | 25576 | 31993 | 1.22 | 3.0E-28 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 12865 | 25576 | 31994 | 1.22 | 3.0E-28 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 91 | 13326 | 26354 | 12.79 | 2.0E-28 | BE062167.1 | EST_HUMAN | RC1-BT0254-220300-019-c05 BT0254 Homo sapiens cDNA |
| 1191 | 14353 | 27411 | 9.24 | 2.0E-28 | Y11107.3 | NT | Homo sapiens ITGB4 gene for integrin beta 4 subunit, exons 3-41 |
| 2546 | 15671 | 28795 | 2.16 | 2.0E-28 | AI348634.1 | EST_HUMAN | qo35b06.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1910483 3' similar to contains L1.b2 L1 repetitive element ; |
| 3446 | 16614 | 29632 | 0.81 | 2.0E-28 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 6437 | 19604 | 32968 | 1.48 | 2.0E-28 | BF224402.1 | EST_HUMAN | hr76c03.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3134404 3' similar to contains LOR1.b1 LOR1 repetitive element ; |
| 6460 | 19627 | | 3 | 2.0E-28 | BF212906.1 | EST_HUMAN | 601814196F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4048751 5' |
| 8234 | 21316 | 34837 | 0.63 | 2.0E-28 | AF005273.1 | NT | Sus scrofa domestica submaxillary apomucin mRNA, complete cds |
| 9783 | 22823 | | 2.23 | 2.0E-28 | AW972305.1 | EST_HUMAN | EST384394 MAGE resequences, MAGL Homo sapiens cDNA |
| 11913 | 24900 | 38603 | 2.52 | 2.0E-28 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 12631 | 25424 | | 1.74 | 2.0E-28 | H06376.1 | EST_HUMAN | yl79c09.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:44300 5' |
| 1508 | 14661 | 27744 | 2.85 | 1.0E-28 | D38044.1 | NT | Human gene for Ah-receptor, exon 7-9 |
| 2294 | 15426 | 28560 | 3.91 | 1.0E-28 | BF333236.1 | EST_HUMAN | QV1-BT0821-120900-360-b03 BT0821 Homo sapiens cDNA |
| 4691 | 17826 | | 0.95 | 1.0E-28 | U09410.1 | NT | Human zinc finger protein ZNF131 mRNA, partial cds |
| 8044 | 21127 | | 1.95 | 1.0E-28 | 11429885 | NT | Homo sapiens similar to ribosomal protein L12 (H. sapiens) (LOC63091), mRNA |
| 8208 | 21290 | | 3.03 | 1.0E-28 | 8922793 | NT | Homo sapiens hypothetical protein FLJ10968 (FLJ10968), mRNA |
| 9478 | 22535 | 36099 | 4.75 | 1.0E-28 | AA308744.1 | EST_HUMAN | EST179615 HCC cell line (metastasis to liver in mouse) II Homo sapiens cDNA 5' end similar to similar to retroviral LTR |
| 10080 | 23118 | 36720 | 5.91 | 1.0E-28 | 4758431 | NT | Homo sapiens gamma-glutamyltransferase-like activity 1 (GGTLA1), mRNA |
| 10080 | 23118 | 36721 | 5.91 | 1.0E-28 | 4758431 | NT | Homo sapiens gamma-glutamyltransferase-like activity 1 (GGTLA1), mRNA |
| 12186 | 25145 | | 7.66 | 1.0E-28 | AA054182.1 | EST_HUMAN | zf51c01.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:380448 5' |
| 13013 | 25881 | | 4.56 | 1.0E-28 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 13135 | 26122 | 31543 | 1.8 | 9.0E-29 | AW663987.1 | EST_HUMAN | hi76g06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2978266 3' |
| 12752 | 25498 | | 2.57 | 8.0E-29 | Q00130 | SWISSPROT | HYPOTHETICAL GENE 50 PROTEIN |
| 1632 | 14784 | 27870 | 1.98 | 7.0E-29 | AW966447.1 | EST_HUMAN | EST378521 MAGE resequences, MAGI Homo sapiens cDNA |
| 13197 | 25779 | | 9.03 | 7.0E-29 | AJ132352.1 | NT | Rattus norvegicus mRNA for 45 kDa secretory protein, partial |
| 608 | 13797 | 26817 | 9.39 | 6.0E-29 | AI936748.1 | EST_HUMAN | wp69b01.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2466985 3' similar to TR:O15475 O15475 UNNAMED HERV-H PROTEIN ;contains LTR7.b1 LTR7 repetitive element ; |
| 12495 | 25342 | | 5.19 | 6.0E-29 | BE940436.1 | EST_HUMAN | RC3-UT0062-210800-021-c05 UT0062 Homo sapiens cDNA |
| 12587 | 25395 | | 2.1 | 6.0E-29 | BF568097.1 | EST_HUMAN | 602184092F1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300079 5' |
| 5113 | 18241 | | 2.39 | 5.0E-29 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 8929 | 22008 | | 8.35 | 5.0E-29 | AW887541.1 | EST_HUMAN | RC3-OT0091-170300-011-c12 OT0091 Homo sapiens cDNA |
| 12795 | 25531 | | 1.49 | 5.0E-29 | BE612449.1 | EST_HUMAN | 601451827F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3855726 5' |
| 3304 | 16478 | | 2.28 | 4.0E-29 | AI752367.1 | EST_HUMAN | cn15c02.x1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn15c02 random |
| 6133 | 19312 | | 7.06 | 4.0E-29 | BE164930.1 | EST_HUMAN | QV1-HT0471-280300-121-a05 HT0471 Homo sapiens cDNA |
| 8272 | 21354 | 34870 | 0.64 | 4.0E-29 | AI678101.1 | EST_HUMAN | wd35g06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2330170 3' similar to contains MER29.t2 MER29 repetitive element ; |
| 8272 | 21354 | 34871 | 0.64 | 4.0E-29 | AI678101.1 | EST_HUMAN | wd35g06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2330170 3' similar to contains MER29.t2 MER29 repetitive element ; |
| 8944 | 22023 | 35563 | 3.59 | 4.0E-29 | J04988.1 | NT | Human 90 kD heat shock protein gene, complete cds |
| 4536 | 17674 | 30658 | 1.31 | 3.0E-29 | AB042297.1 | NT | Homo sapiens PTS gene for 6-pyruvoyltetrahydropterin synthase, complete cds |
| 4855 | 17988 | 30976 | 1.1 | 3.0E-29 | BF333236.1 | EST_HUMAN | QV1-BT0821-120900-360-b03 BT0821 Homo sapiens cDNA |
| 6053 | 19235 | 32560 | 0.83 | 3.0E-29 | BE314018.1 | EST_HUMAN | 601152657F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3508527 5' |
| 8931 | 22010 | 35548 | 3.23 | 3.0E-29 | D38044.1 | NT | Human gene for Ah-receptor, exon 7-9 |
| 9500 | 22556 | 36119 | 1.22 | 3.0E-29 | AW303317.1 | EST_HUMAN | xv17f03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2813405 3' similar to contains Alu repetitive element;contains MER19.t2 MER19 repetitive element ; |
| 9731 | 22796 | | 1.49 | 3.0E-29 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 10164 | 23201 | | 0.61 | 3.0E-29 | BE350127.1 | EST_HUMAN | ht09g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146256 3' similar to contains MER29.b3 MER29 repetitive element ; |
| 11546 | 24602 | 38278 | 2.26 | 3.0E-29 | AA403053.1 | EST_HUMAN | zt62b01.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:726889 5' similar to TR:G1335769 G1335769 GAG-POL POLYPROTEIN. ; |
| 12385 | 25272 | | 1.36 | 3.0E-29 | D63882.1 | NT | Human HsLIM15 mRNA for HsLim15, complete cds |
| 13092 | 26132 | | 1.62 | 3.0E-29 | D63882.1 | NT | Human HsLIM15 mRNA for HsLim15, complete cds |
| 505 | 13699 | 26727 | 0.98 | 2.0E-29 | AF084869.1 | NT | Homo sapiens envelope protein RIC-6 (env) gene, complete cds |
| 505 | 13699 | 26728 | 0.98 | 2.0E-29 | AF084869.1 | NT | Homo sapiens envelope protein RIC-6 (env) gene, complete cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1563 | 14716 | 27794 | 7.8 | 2.0E-29 | AI963604.1 | EST_HUMAN | wr65d10.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2492563 3' similar to TR:O15546 O15546 HERV-E ENVELOPE GLYCOPROTEIN ; |
| 1563 | 14716 | 27795 | 7.8 | 2.0E-29 | AI963604.1 | EST_HUMAN | wr65d10.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2492563 3' similar to TR:O15546 O15546 HERV-E ENVELOPE GLYCOPROTEIN ; |
| 1782 | 14931 | 28024 | 2.31 | 2.0E-29 | X84900.1 | NT | H.sapiens mRNA for laminin-5, alpha3b chain |
| 1782 | 14931 | 28025 | 2.31 | 2.0E-29 | X84900.1 | NT | H.sapiens mRNA for laminin-5, alpha3b chain |
| 4394 | 17537 | 30516 | 2.55 | 2.0E-29 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 5946 | 19132 | 32446 | 0.78 | 2.0E-29 | AI082459.1 | EST_HUMAN | os71e04.x1 NCI_CGAP_GC2 Homo sapiens cDNA clone IMAGE:1610814 3' similar to contains L1.t2 L1 repetitive element ; |
| 6309 | 19481 | 32835 | 1.49 | 2.0E-29 | AI806418.1 | EST_HUMAN | wf27g07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2356860 3' similar to contains element MER6 repetitive element ; |
| 7732 | 19481 | 32835 | 1.28 | 2.0E-29 | AI806418.1 | EST_HUMAN | wf27g07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2356860 3' similar to contains element MER6 repetitive element ; |
| 8164 | 21246 | 34766 | 1.16 | 2.0E-29 | BE867157.1 | EST_HUMAN | 601442206F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3846648 5' |
| 8777 | 21856 | 35398 | 0.61 | 2.0E-29 | 10567821 | NT | Homo sapiens DNA-binding protein (LOC56242), mRNA |
| 8777 | 21856 | 35399 | 0.61 | 2.0E-29 | 10567821 | NT | Homo sapiens DNA-binding protein (LOC56242), mRNA |
| 9708 | 22757 | 36327 | 2.76 | 2.0E-29 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 9708 | 22757 | 36328 | 2.76 | 2.0E-29 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 10444 | 23479 | 37084 | 3.65 | 2.0E-29 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 10444 | 23479 | 37085 | 3.65 | 2.0E-29 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 11767 | 24760 |  | 1.67 | 2.0E-29 | 11425108 | NT | Homo sapiens splicing factor similar to dnaJ (SPF31), mRNA |
| 8992 | 22071 | 35611 | 8.27 | 1.0E-29 | AW983880.1 | EST_HUMAN | RC1-HN0003-220300-021-b04 HN0003 Homo sapiens cDNA |
| 10850 | 23883 | 37503 | 2.81 | 1.0E-29 | X60658.1 | NT | R.rattus RYA3 mRNA for a potential ligand-binding protein |
| 6712 | 19870 | 33261 | 3.53 | 9.0E-30 | AA761215.1 | EST_HUMAN | nz20c07.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1288332 3' similar to contains MER4.b1 MER4 repetitive element ; |
| 12266 | 25200 |  | 4.55 | 9.0E-30 | 11422745 | NT | Homo sapiens zinc/iron regulated transporter-like (ZIRTL), mRNA |
| 6449 | 19616 |  | 10.5 | 8.0E-30 | F08688.1 | EST_HUMAN | HSC23F051 normalized infant brain cDNA Homo sapiens cDNA clone c-23f05 |
| 8465 | 21546 | 35076 | 2.26 | 8.0E-30 | AA383873.1 | EST_HUMAN | EST97317 Thymus I Homo sapiens cDNA 5' end similar to EST containing O family repeat |
| 8882 | 21961 | 35495 | 2.79 | 8.0E-30 | AI557072.1 | EST_HUMAN | PT2.1_13_B11.r tumor2 Homo sapiens cDNA 3' |
| 1646 | 14697 |  | 1.07 | 7.0E-30 | BE091133.1 | EST_HUMAN | PM4-BT0724-150400-004-d11 BT0724 Homo sapiens cDNA |
| 1814 | 14963 | 28056 | 1.57 | 6.0E-30 | D25303.1 | NT | Human mRNA for integrin alpha subunit, complete cds |
| 3259 | 16433 | 29450 | 3.15 | 6.0E-30 | BE008026.1 | EST_HUMAN | QV0-BN0147-290400-214-f12 BN0147 Homo sapiens cDNA |
| 4881 | 16433 | 29450 | 1.02 | 6.0E-30 | BE008026.1 | EST_HUMAN | QV0-BN0147-290400-214-f12 BN0147 Homo sapiens cDNA |
| 10760 | 23793 | 37412 | 0.76 | 6.0E-30 | AF177227.1 | NT | Homo sapiens CTCL tumor antigen se20-10 mRNA, partial cds |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 13161 | 18485 | | 1.75 | 6.0E-30 | X51755.1 | NT | Human lambda-immunoglobulin constant region complex (germline) |
| 4121 | 17275 | 30274 | 43.22 | 5.0E-30 | AI399992.1 | EST_HUMAN | tg92g03.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2116276 3' similar to contains Alu repetitive element; |
| 5353 | 25928 | | 5.79 | 5.0E-30 | U87931.1 | NT | Human aconitate hydratase (ACO2) gene, exon 7 |
| 11126 | 24198 | | 2.12 | 5.0E-30 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 11423 | 24484 | 38148 | 2.76 | 5.0E-30 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 11423 | 24484 | 38149 | 2.76 | 5.0E-30 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 2210 | 15344 | 28470 | 2.38 | 4.0E-30 | AW937471.1 | EST_HUMAN | QV3-DT0043-090200-080-c06 DT0043 Homo sapiens cDNA |
| 2210 | 15344 | 28471 | 2.38 | 4.0E-30 | AW937471.1 | EST_HUMAN | QV3-DT0043-090200-080-c06 DT0043 Homo sapiens cDNA |
| 9106 | 22185 | 35729 | 1.55 | 4.0E-30 | AW812488.1 | EST_HUMAN | CM1-ST0181-091199-035-f08 ST0181 Homo sapiens cDNA |
| 1175 | 14338 | | 4.56 | 3.0E-30 | AI338551.1 | EST_HUMAN | qq93c05.x1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1938920 3' similar to contains MER29.b2 MER29 repetitive element ; |
| 3853 | 17013 | 30013 | 1.15 | 3.0E-30 | AF128893.1 | NT | Homo sapiens telomerase reverse transcriptase (TERT) gene, exons 1-6 |
| 8138 | 21220 | | 0.53 | 3.0E-30 | AF078779.1 | NT | Rattus norvegicus putative four repeat ion channel mRNA, complete cds |
| 8683 | 21763 | | 0.45 | 3.0E-30 | AF078779.1 | NT | Rattus norvegicus putative four repeat ion channel mRNA, complete cds |
| 10649 | 23683 | 37294 | 0.74 | 3.0E-30 | BE350127.1 | EST_HUMAN | ht09g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146256 3' similar to contains MER29.b3 MER29 repetitive element ; |
| 11482 | 24541 | 38211 | 1.52 | 3.0E-30 | P34056 | SWISSPROT | TRANSCRIPTION FACTOR AP-2 |
| 692 | 13875 | 26908 | 1.42 | 2.0E-30 | AW857315.1 | EST_HUMAN | CM0-CT0307-310100-158-h03 CT0307 Homo sapiens cDNA |
| 1108 | 14273 | | 2.53 | 2.0E-30 | F08688.1 | EST_HUMAN | HSC23F051 normalized infant brain cDNA Homo sapiens cDNA clone c-23f05 |
| 1509 | 14662 | 27745 | 6.5 | 2.0E-30 | BE175877.1 | EST_HUMAN | RC5-HT0582-110400-013-H08 HT0582 Homo sapiens cDNA |
| 2779 | 15895 | 29005 | 9.93 | 2.0E-30 | BE765232.1 | EST_HUMAN | IL2-NT0101-280700-116-E04 NT0101 Homo sapiens cDNA |
| 2986 | 16162 | 29179 | 6.83 | 2.0E-30 | AF114156.1 | NT | Homo sapiens Y-linked zinc finger protein (ZFY) gene, complete cds |
| 3889 | 17048 | 30048 | 1.95 | 2.0E-30 | AW206581.1 | EST_HUMAN | UI-H-BI1-afo-c-12-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2722558 3' |
| 4900 | 18030 | 31018 | 2.02 | 2.0E-30 | BE298945.1 | EST_HUMAN | 601119860F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3029438 5' |
| 4900 | 18030 | 31019 | 2.02 | 2.0E-30 | BE298945.1 | EST_HUMAN | 601119860F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3029438 5' |
| 8734 | 21814 | 35349 | 4.69 | 2.0E-30 | C18939.1 | EST_HUMAN | C18939 Human placenta cDNA (TFujiwara) Homo sapiens cDNA clone GEN-570C01 5' |
| 8836 | 21916 | 35452 | 1.71 | 2.0E-30 | BE670617.1 | EST_HUMAN | 7e37c12.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284662 3' similar to SW:DHSA_HUMAN P31040 SUCCINATE DEHYDROGENASE [UBIQUINONE] FLAVOPROTEIN SUBUNIT PRECURSOR ; |
| 8836 | 21915 | 35453 | 1.71 | 2.0E-30 | BE670617.1 | EST_HUMAN | 7e37c12.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284662 3' similar to SW:DHSA_HUMAN P31040 SUCCINATE DEHYDROGENASE [UBIQUINONE] FLAVOPROTEIN SUBUNIT PRECURSOR ; |
| 10201 | 23238 | 36828 | 3.78 | 2.0E-30 | AW971568.1 | EST_HUMAN | EST383657 MAGE resequences, MAGL Homo sapiens cDNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10287 | 23322 | 36924 | 6.31 | 2.0E-30 | AW470791.1 | EST_HUMAN | ha33d06.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2875499 3' similar to contains THR.b3 THR repetitive element ; |
| 297 | 13514 | 26548 | 10.87 | 1.0E-30 | C18939.1 | EST_HUMAN | C18939 Human placenta cDNA (TFujiwara) Homo sapiens cDNA clone GEN-570C01 5' |
| 551 | 13744 | 26769 | 1.62 | 1.0E-30 | AW468897.1 | EST_HUMAN | hd30b04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2910991 3' similar to contains MER1.t3 MER1 MER1 repetitive element ; |
| 734 | 13916 | 26956 | 5.15 | 1.0E-30 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 2286 | 15418 | 28550 | 11.56 | 1.0E-30 | AA664377.1 | EST_HUMAN | ac77b08.s1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:868599 3' |
| 2533 | 15658 | 28782 | 2.15 | 1.0E-30 | BF347728.1 | EST_HUMAN | 602022560F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4157991 5' |
| 3120 | 16296 | 29310 | 0.91 | 1.0E-30 | AA316046.1 | EST_HUMAN | EST186868 HCC cell line (matastasis to liver in mouse) II Homo sapiens cDNA 5' end |
| 7901 | 20953 | 34460 | 1.96 | 1.0E-30 | BF183230.1 | EST_HUMAN | 601809932F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:4040694 5' |
| 8176 | 21258 | 34780 | 0.49 | 1.0E-30 | BE061586.1 | EST_HUMAN | MR0-BT0249-091299-101-g01 BT0249 Homo sapiens cDNA |
| 12786 | 26117 |  | 1.57 | 1.0E-30 | AA299211.1 | EST_HUMAN | EST11698 Uterus Homo sapiens cDNA 5' end |
| 12937 | 26025 |  | 5.31 | 1.0E-30 | H55593.1 | EST_HUMAN | CHR220632 Chromosome 22 exon Homo sapiens cDNA clone C22_728 5' |
| 3862 | 17022 | 30020 | 0.8 | 9.0E-31 | T73025.1 | EST_HUMAN | yc65e06.r1 Stratagene liver (#937224) Homo sapiens cDNA clone IMAGE:85570 5' |
| 3862 | 17022 | 30021 | 0.8 | 9.0E-31 | T73025.1 | EST_HUMAN | yc65e06.r1 Stratagene liver (#937224) Homo sapiens cDNA clone IMAGE:85570 5' |
| 8519 | 21600 | 35135 | 0.88 | 9.0E-31 | R18214.1 | EST_HUMAN | yf99b08.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:30566 5' similar to gb:X12953 RAS-RELATED PROTEIN RAB-2 (HUMAN); |
| 8519 | 21600 | 35136 | 0.88 | 9.0E-31 | R18214.1 | EST_HUMAN | yf99b08.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:30566 5' similar to gb:X12953 RAS-RELATED PROTEIN RAB-2 (HUMAN); |
| 8825 | 21904 |  | 1.99 | 9.0E-31 | Z38293.1 | EST_HUMAN | HSC05F032 normalized infant brain cDNA Homo sapiens cDNA clone c-05f03 3' |
| 8827 | 21906 | 35445 | 0.65 | 9.0E-31 | AF078779.1 | NT | Rattus norvegicus putative four repeat ion channel mRNA, complete cds |
| 13193 | 25776 | 31934 | 1.29 | 9.0E-31 | 6755441 | NT | Mus musculus syndecan 4 (Sdc4), mRNA |
| 1102 | 14267 | 27325 | 2.52 | 8.0E-31 | 8923389 | NT | Homo sapiens hypothetical protein FLJ20420 (FLJ20420), mRNA |
| 2484 | 15611 |  | 7.93 | 8.0E-31 | AL163208.2 | NT | Homo sapiens chromosome 21 segment HS21C008 |
| 729 | 13911 |  | 1.59 | 7.0E-31 | AA372637.1 | EST_HUMAN | EST84555 Colon adenocarcinoma IV Homo sapiens cDNA 5' end |
| 2733 | 15850 | 28962 | 2.1 | 7.0E-31 | BE326517.1 | EST_HUMAN | hw05a11.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3182012 3' |
| 2733 | 15850 | 28963 | 2.1 | 7.0E-31 | BE326517.1 | EST_HUMAN | hw05a11.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3182012 3' |
| 8595 | 21676 | 35212 | 1.02 | 7.0E-31 | AF208541.1 | NT | Homo sapiens V1-vascular vasopressin receptor AVPR1A gene, promoter region and partial cds |
| 8595 | 21676 | 35213 | 1.02 | 7.0E-31 | AF208541.1 | NT | Homo sapiens V1-vascular vasopressin receptor AVPR1A gene, promoter region and partial cds |
| 9466 | 22523 |  | 1.03 | 7.0E-31 | BE408611.1 | EST_HUMAN | 601304125F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638310 5' |
| 3769 | 16930 |  | 3.42 | 6.0E-31 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 8347 | 21428 |  | 1.39 | 6.0E-31 | AF055066.1 | NT | Homo sapiens MHC class 1 region |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8526 | 21607 | 35146 | 0.76 | 6.0E-31 | BE350127.1 | EST_HUMAN | ht09g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146256 3' similar to contains MER29.b3 MER29 repetitive element ; |
| 10976 | 24055 | 37689 | 1.43 | 6.0E-31 | AU119105.1 | EST_HUMAN | AU119105 HEMBA1 Homo sapiens cDNA clone HEMBA1005050 5' |
| 12327 | 25236 | 32108 | 3.7 | 6.0E-31 | AW372868.1 | EST_HUMAN | RC5-BT0377-091299-031-D12 BT0377 Homo sapiens cDNA |
| 12459 | 25947 | | 2.54 | 6.0E-31 | BE894488.1 | EST_HUMAN | 601433087F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918524 5' |
| 197 | 13420 | 26450 | 3.39 | 5.0E-31 | M60694.1 | NT | Homo sapiens type I DNA topoisomerase gene, exon 8 |
| 197 | 13420 | 26451 | 3.39 | 5.0E-31 | M60694.1 | NT | Homo sapiens type I DNA topoisomerase gene, exon 8 |
| 8640 | 21720 | | 1.29 | 5.0E-31 | BF056540.1 | EST_HUMAN | 7k06f04.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:3443479 3' similar to TR:Q13537 Q13537 SIMILAR TO POGO ELEMENT. ;contains L1.t1 L1 repetitive element ; |
| 609 | 13798 | | 3.02 | 4.0E-31 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 1642 | 14794 | 27878 | 1.14 | 4.0E-31 | Q10473 | SWISSPROT | POLYPEPTIDE N-ACETYLGALACTOSAMINYLTRANSFERASE (PROTEIN-UDP ACETYLGALACTOSAMINYLTRANSFERASE) (UDP-GALNAC:POLYPEPTIDE, N-ACETYLGALACTOSAMINYLTRANSFERASE) (GALNAC-T1) |
| 1861 | 15007 | | 2.09 | 4.0E-31 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 2849 | 15963 | | 1.57 | 4.0E-31 | 5730038 | NT | Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA |
| 10764 | 23787 | 37402 | 0.46 | 4.0E-31 | AF084464.1 | NT | Rattus norvegicus GTP-binding protein REM2 (Rem2) mRNA, complete cds |
| 12787 | 25526 | | 1.55 | 4.0E-31 | 11430273 | NT | Homo sapiens KIAA0569 gene product (KIAA0569), mRNA |
| 12924 | 25609 | | 2 | 4.0E-31 | AB008681.1 | NT | Homo sapiens gene for activin receptor type IIB, complete cds |
| 2660 | 15782 | 28897 | 1.75 | 3.0E-31 | 6005871 | NT | Homo sapiens SEC63, endoplasmic reticulum translocon component (S. cerevisiae) like (SEC63L), mRNA |
| 7494 | 20569 | 34041 | 8.04 | 3.0E-31 | 4826853 | NT | Homo sapiens NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 8 (19kD, ASHI) (NDUFB8) mRNA |
| 7663 | 20730 | 34206 | 1.23 | 3.0E-31 | 11420329 | NT | Homo sapiens hypothetical protein FLJ10842 (FLJ10842), mRNA |
| 8355 | 21436 | | 1.51 | 3.0E-31 | AL163206.2 | NT | Homo sapiens chromosome 21 segment HS21C006 |
| 9779 | 22819 | 36397 | 2.59 | 3.0E-31 | D14523.1 | NT | Horse mRNA for ferritin L-chain, complete cds |
| 10822 | 23855 | 37477 | 0.65 | 3.0E-31 | AA421242.1 | EST_HUMAN | zu06d04.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:731047 5' |
| 10867 | 23952 | 37582 | 2.03 | 3.0E-31 | P11174 | SWISSPROT | 40S RIBOSOMAL PROTEIN S15 (RIG PROTEIN) |
| .11421 | 24482 | | 3.47 | 3.0E-31 | BF035327.1 | EST_HUMAN | 601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 1967 | 15110 | 28211 | 1.58 | 2.0E-31 | AW838171.1 | EST_HUMAN | QV2-LT0051-260300-111-f03 LT0051 Homo sapiens cDNA |
| 2288 | 15420 | 28552 | 1.05 | 2.0E-31 | AI393388.1 | EST_HUMAN | tg44g05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2111672 3' |
| 2416 | 15545 | 28674 | 2.22 | 2.0E-31 | AL119245.1 | EST_HUMAN | DKFZp761G1513_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761G1513 5' |
| 2511 | 15637 | 28758 | 4.63 | 2.0E-31 | AA458824.1 | EST_HUMAN | aa88f11.s1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:838413 3' similar to contains THR.t2 THR repetitive element ; |
| 5389 | 18591 | 31563 | 0.76 | 2.0E-31 | AW444496.1 | EST_HUMAN | UI-H-BI3-akb-f-09-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2733833 3' |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5829 | 19020 | 32326 | 3.43 | 2.0E-31 | BE350127.1 | EST_HUMAN | ht09g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146256 3' similar to contains MER29.b3 MER29 repetitive element ; |
| 9277 | 22363 | | 1.53 | 2.0E-31 | AA877764.1 | EST_HUMAN | nr06f04.s1 NCI_CGAP_Co10 Homo sapiens cDNA clone IMAGE:1161055 3' similar to TR:Q13537 Q13537 MER37 TRANSPOSABLE ELEMENT, COMPLETE CONSENSUS SEQUENCE. ; |
| 9408 | 22482 | 36046 | 3.46 | 2.0E-31 | 7661535 | NT | Homo sapiens B9 protein (B9), mRNA |
| 10110 | 23148 | 36748 | 1.1 | 2.0E-31 | AV710948.1 | EST_HUMAN | AV710948 Cu Homo sapiens cDNA clone CuAALB07 5' |
| 10110 | 23148 | 36749 | 1.1 | 2.0E-31 | AV710948.1 | EST_HUMAN | AV710948 Cu Homo sapiens cDNA clone CuAALB07 5' |
| 10280 | 23315 | 36914 | 2.75 | 2.0E-31 | BE408611.1 | EST_HUMAN | 601304125F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638310 5' |
| 10280 | 23315 | 36915 | 2.75 | 2.0E-31 | BE408611.1 | EST_HUMAN | 601304125F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638310 5' |
| 12430 | 25305 | | 3.49 | 2.0E-31 | AF148512.1 | NT | Homo sapiens hexokinase II gene, promoter region |
| 12578 | 26202 | | 2.59 | 2.0E-31 | AI114527.1 | EST_HUMAN | HA1110 Human fetal liver cDNA library Homo sapiens cDNA |
| 17 | 13255 | 26256 | 9.91 | 1.0E-31 | U93163.1 | NT | Homo sapiens MAGE-B2 (MAGE-B2), MAGE-B3 (MAGE-B3), MAGE-B4 (MAGE-B4), and MAGE-B1 (MAGE-B1) genes, complete cds |
| 1696 | 14848 | 27932 | 2.66 | 1.0E-31 | O95371 | SWISSPROT | OLFACTORY RECEPTOR 2C1 |
| 1696 | 14848 | 27933 | 2.66 | 1.0E-31 | O95371 | SWISSPROT | OLFACTORY RECEPTOR 2C1 |
| 1696 | 14848 | 27934 | 2.66 | 1.0E-31 | O95371 | SWISSPROT | OLFACTORY RECEPTOR 2C1 |
| 5407 | 18609 | 31581 | 3.97 | 1.0E-31 | AW391679.1 | EST_HUMAN | MR3-ST0220-151299-028-a08_1 ST0220 Homo sapiens cDNA |
| 6261 | 19435 | 32781 | 2.57 | 1.0E-31 | AF048727.1 | NT | Homo sapiens minisatellite ceb1 repeat region |
| 7441 | 20618 | 33990 | 0.84 | 1.0E-31 | AF126145.1 | NT | Bos taurus xenobiotic/medium-chain fatty acid:CoA ligase form XL-III mRNA, nuclear mRNA encoding mitochondrial protein, complete cds |
| 8005 | 21055 | 34567 | 1.35 | 1.0E-31 | BE972818.1 | EST_HUMAN | 601652052F1 NIH_MGC_82 Homo sapiens cDNA clone IMAGE:3935293 5' |
| 10441 | 23476 | 37080 | 0.5 | 1.0E-31 | U93163.1 | NT | Homo sapiens MAGE-B2 (MAGE-B2), MAGE-B3 (MAGE-B3), MAGE-B4 (MAGE-B4), and MAGE-B1 (MAGE-B1) genes, complete cds |
| 11156 | 24227 | 37857 | 2.35 | 1.0E-31 | AI086434.1 | EST_HUMAN | qf21h03.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:1750709 3' similar to TR:Q16595 Q16595 FRATAXIN. ; |
| 6776 | 19931 | 33327 | 2.19 | 9.0E-32 | AV723976.1 | EST_HUMAN | AV723976 HTB Homo sapiens cDNA clone HTBAAG01 5' |
| 7530 | 20603 | 34077 | 0.66 | 9.0E-32 | L31770.1 | NT | Bos taurus vacuolar H+-ATPase subunit mRNA, complete cds |
| 7766 | 20825 | | 0.91 | 9.0E-32 | 11430822 | NT | Homo sapiens hypothetical protein FLJ11294 (FLJ11294), mRNA |
| 2139 | 15275 | 28397 | 5.1 | 8.0E-32 | AI056770.1 | EST_HUMAN | oz15a09.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1675384 3' |
| 5599 | 18794 | 31843 | 0.77 | 8.0E-32 | AW997214.1 | EST_HUMAN | RC2-BN0048-200300-015-e04 BN0048 Homo sapiens cDNA |
| 12406 | 25285 | | 2.36 | 7.0E-32 | X17283.1 | NT | Human chromosome 22 immunoglobulin V(K)I gene, part. with 5' breakpoint between orphon and neighbouring non-amplified region |
| 7523 | 20596 | | 1.32 | 6.0E-32 | BE888016.1 | EST_HUMAN | 601511530F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913087 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 12869 | 26181 |  | 2.5 | 6.0E-32 | AA864653.1 | EST_HUMAN | oh37c03.s1 NCI_CGAP_Kid6 Homo sapiens cDNA clone IMAGE:1459972 3' similar to contains L1.t3 L1 repetitive element ; |
| 1059 | 14225 | 27282 | 10.42 | 5.0E-32 | AF116627.1 | NT | Homo sapiens PRO1181 mRNA, complete cds |
| 954 | 14127 |  | 1.64 | 4.0E-32 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 7779 | 20835 | 34326 | 3.4 | 4.0E-32 | 11432574 | NT | Homo sapiens AT-binding transcription factor 1·(ATBF1), mRNA |
| 7779 | 20835 | 34327 | 3.4 | 4.0E-32 | 11432574 | NT | Homo sapiens AT-binding transcription factor 1 (ATBF1), mRNA |
| 8554 | 21635 |  | 0.93 | 4.0E-32 | BE064410.1 | EST_HUMAN | RC4-BT0311-141199-011-h06 BT0311 Homo sapiens cDNA |
| 468 | 13663 | 26699 | 2.64 | 3.0E-32 | Y17293.1 | NT | Homo sapiens FLI-1 gene, partial |
| 1484 | 14637 | 27721 | 15.82 | 3.0E-32 | AV731500.1 | EST_HUMAN | AV731500 HTF Homo sapiens cDNA clone HTFAKC07 5' |
| 2973 | 16149 | 29168 | 0.75 | 3.0E-32 | 5174574 | NT | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA |
| 2973 | 16149 | 29169 | 0.75 | 3.0E-32 | 5174574 | NT | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA |
| 9594 | 22649 | 36221 | 3.1 | 3.0E-32 | AV758634.1 | EST_HUMAN | AV758634 BM Homo sapiens cDNA clone BMFBBH12 5' |
| 9594 | 22649 | 36222 | 3.1 | 3.0E-32 | AV758634.1 | EST_HUMAN | AV758634 BM Homo sapiens cDNA clone BMFBBH12 5' |
| 11166 | 24237 | 37868 | 3.43 | 3.0E-32 | AA777621.1 | EST_HUMAN | zi95a07.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:448500 3' similar to contains THR.t3 THR repetitive element ; |
| 12433 | 25307 |  | 7.95 | 3.0E-32 | BE279086.1 | EST_HUMAN | 601156285F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3139701 5' |
| 12843 | 16149 | 29168 | 4.95 | 3.0E-32 | 5174574 | NT | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA |
| 12843 | 16149 | 29169 | 4.95 | 3.0E-32 | 5174574 | NT | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA |
| 13020 | 25671 |  | 6.47 | 3.0E-32 | BE279086.1 | EST_HUMAN | 601156285F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3139701 5' |
| 6382 | 19551 | 32907 | 0.89 | 2.0E-32 | M35418.1 | NT | Human cell 12-lipoxygenase mRNA, complete cds |
| 6608 | 19768 | 33156 | 5.55 | 2.0E-32 | Z38133.1 | NT | H.sapiens mRNA for myosin |
| 6608 | 19768 | 33157 | 5.55 | 2.0E-32 | Z38133.1 | NT | H.sapiens mRNA for myosin |
| 8473 | 21554 | 35085 | 3.34 | 2.0E-32 | AA114294.1 | EST_HUMAN | zn66c08.r1 Stratagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:563150 5' |
| 8473 | 21554 | 35086 | 3.34 | 2.0E-32 | AA114294.1 | EST_HUMAN | zn66c08.r1 Stratagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:563150 5' |
| 13154 | 25750 | 31923 | 1.28 | 2.0E-32 | AV736449.1 | EST_HUMAN | AV736449 CB Homo sapiens cDNA clone CBFBIA08 5' |
| 13154 | 25750 | 31924 | 1.28 | 2.0E-32 | AV736449.1 | EST_HUMAN | AV736449 CB Homo sapiens cDNA clone CBFBIA08 5' |
| 3163 | 16338 |  | 1.25 | 1.0E-32 | BE743299.1 | EST_HUMAN | 601573207F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3834433 5' |
| 7200 | 20065 | 33476 | 6.64 | 1.0E-32 | 11439789 | NT | Homo sapiens chromosome 11open reading frame 9 (C11ORF9), mRNA |
| 8795 | 21874 | 35413 | 4.56 | 1.0E-32 | AA720574.1 | EST_HUMAN | nw21g02.s1 NCI_CGAP_GCB0 Homo sapiens cDNA clone IMAGE:1241138 3' similar to contains THR.t3 THR repetitive element ; |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3570 | 16735 | | 4.8 | 9.0E-33 | BE327112.1 | EST_HUMAN | hw07c05.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3182216 3' similar to TR:O88539 O88539 WW DOMAIN BINDING PROTEIN 11. ; |
| 6550 | 19712 | | 3.17 | 9.0E-33 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 8988 | 22067 | 35607 | 1.81 | 9.0E-33 | BF347229.1 | EST_HUMAN | 602021164F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4156670 5' |
| 11038 | 24117 | | 4.55 | 9.0E-33 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 62 | 13300 | 26320 | 2.73 | 7.0E-33 | 5031736 | NT | Homo sapiens short-chain alcohol dehydrogenase family member (HEP27) mRNA |
| 62 | 13300 | 26321 | 2.73 | 7.0E-33 | 5031736 | NT | Homo sapiens short-chain alcohol dehydrogenase family member (HEP27) mRNA |
| 2228 | 15362 | 28491 | 3.04 | 7.0E-33 | AI590115.1 | EST_HUMAN | to12b09.x1 NCI_CGAP_Ut2 Homo sapiens cDNA clone IMAGE:2178809 3' similar to contains OFR.t1 OFR repetitive element ; |
| 2714 | 15832 | | 7.95 | 7.0E-33 | AV730056.1 | EST_HUMAN | AV730056 HTF Homo sapiens cDNA clone HTFAVE06 5' |
| 3314 | 16487 | | 15 | 7.0E-33 | AW971307.1 | EST_HUMAN | EST383396 MAGE resequences, MAGL Homo sapiens cDNA |
| 9147 | 22226 | | 0.87 | 7.0E-33 | X54890.1 | NT | Human hLRP mRNA for leukocyte common antigen-related peptide (protein-tyrosine phosphate) (EC 3.1.3.48) |
| 11067 | 24142 | 37777 | 1.88 | 7.0E-33 | BF347229.1 | EST_HUMAN | 602021164F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4156670 5' |
| 11526 | 24582 | 38258 | 1.59 | 7.0E-33 | AW971568.1 | EST_HUMAN | EST383657 MAGE resequences, MAGL Homo sapiens cDNA |
| 12413 | 26292 | 32082 | 9.74 | 7.0E-33 | AA601416.1 | EST_HUMAN | no16h01.s1 NCI_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1100881 3' similar to contains L1.t1 L1 repetitive element ; |
| 3830 | 16990 | | 0.93 | 6.0E-33 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 6192 | 19368 | 32717 | 0.91 | 6.0E-33 | F30631.1 | EST_HUMAN | HSPD21201 HM3 Homo sapiens cDNA clone s4000107H06 |
| 6192 | 19368 | 32718 | 0.91 | 6.0E-33 | F30631.1 | EST_HUMAN | HSPD21201 HM3 Homo sapiens cDNA clone s4000107H06 |
| 8778 | 21857 | 35400 | 1.86 | 6.0E-33 | J04038.1 | NT | Human glyceraldehyde-3-phosphate dehydrogenase (GAPDH) gene, complete cds |
| 8899 | 21978 | 35517 | 3.12 | 6.0E-33 | 11429198 | NT | Homo sapiens similar to RAD23 (S. cerevisiae) homolog B (H. sapiens) (LOC63277), mRNA |
| 10214 | 23250 | 36839 | 2.03 | 6.0E-33 | 6755609 | NT | Mus musculus SRY-box containing gene 6 (Sox6), mRNA |
| 10214 | 23250 | 36840 | 2.03 | 6.0E-33 | 6755609 | NT | Mus musculus SRY-box containing gene 6 (Sox6), mRNA |
| 1818 | 14967 | | 1.9 | 5.0E-33 | BF373515.1 | EST_HUMAN | QV1-FT0169-100700-271-a02 FT0169 Homo sapiens cDNA |
| 1931 | 15074 | | 1.32 | 6.0E-33 | 11141884 | NT | Homo sapiens solute carrier family 5 (choline transporter), member 7 (SLC5A7), mRNA |
| 1947 | 15090 | 28190 | 1.63 | 5.0E-33 | 4507208 | NT | Homo sapiens spermidine synthase (SRM) mRNA |
| 1947 | 15090 | 28191 | 1.63 | 5.0E-33 | 4507208 | NT | Homo sapiens spermidine synthase (SRM) mRNA |
| 2346 | 15477 | | 2.92 | 5.0E-33 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 4169 | 17319 | 30312 | 0.66 | 5.0E-33 | AB014599.1 | NT | Homo sapiens mRNA for KIAA0699 protein, partial cds |
| 10454 | 23489 | 37097 | 0.82 | 5.0E-33 | AW264679.1 | EST_HUMAN | xq33f11.x1 NCI_CGAP_Lu28 Homo sapiens cDNA clone IMAGE:2752461 3' |
| 10454 | 23489 | 37098 | 0.82 | 5.0E-33 | AW264679.1 | EST_HUMAN | xq33f11.x1 NCI_CGAP_Lu28 Homo sapiens cDNA clone IMAGE:2752461 3' |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 12212 | 25165 | | 1.45 | 5.0E-33 | 11433063 | NT | Homo sapiens ubiquitin protein ligase E3A (human papilloma virus E6-associated protein, Angelman syndrome) (UBE3A), mRNA |
| 1162 | 14316 | | 2.25 | 4.0E-33 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 2194 | 15329 | 28454 | 3.37 | 4.0E-33 | 4758987 | NT | Homo sapiens RAB1, member RAS oncogene family (RAB1) mRNA |
| 2491 | 15618 | | 1.16 | 4.0E-33 | AA626621.1 | EST_HUMAN | ab51b11.r1 Stratagene lung carcinoma 937218 Homo sapiens cDNA clone IMAGE:844317 5' similar to contains Alu repetitive element;contains MER28.b2 MER28 repetitive element ; |
| 2610 | 15734 | 28850 | 4.78 | 4.0E-33 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 4606 | 17743 | 30722 | 2.38 | 4.0E-33 | AW293349.1 | EST_HUMAN | UI-H-BI2-ahl-c-03-0-UI.s1 NCI_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2727149 3' |
| 5519 | 18717 | 31731 | 24.75 | 4.0E-33 | AA053053.1 | EST_HUMAN | zl71a08.r1 Stratagene colon (#937204) Homo sapiens cDNA clone IMAGE:510038 5' similar to gb:X12671_rna1 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1 (HUMAN); |
| 6522 | 19687 | 33060 | 0.79 | 4.0E-33 | 8393994 | NT | Homo sapiens polymerase (DNA directed), alpha (POLA), mRNA |
| 6522 | 19687 | 33061 | 0.79 | 4.0E-33 | 8393994 | NT | Homo sapiens polymerase (DNA directed), alpha (POLA), mRNA |
| 1113 | 14278 | | 5.62 | 3.0E-33 | BE350127.1 | EST_HUMAN | ht09g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146256 3' similar to contains MER29.b3 MER29 repetitive element ; |
| 1114 | 14278 | | 5.83 | 3.0E-33 | BE350127.1 | EST_HUMAN | ht09g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146256 3' similar to contains MER29.b3 MER29 repetitive element ; |
| 2522 | 16064 | | 1.16 | 3.0E-33 | AV647851.1 | EST_HUMAN | AV647851 GLC Homo sapiens cDNA clone GLCBCF09 3' |
| 10655 | 23689 | 37298 | 0.87 | 3.0E-33 | AA861510.1 | EST_HUMAN | ak32b12.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1407647 3' similar to TR:Q13579 Q13579 MARINER TRANSPOSASE. ; |
| 18 | 13256 | | 1.67 | 2.0E-33 | AI160189.1 | EST_HUMAN | qb67g03.x1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:1705204 3' similar to contains OFR.t1 OFR repetitive element ; |
| 107 | 13256 | | 5.53 | 2.0E-33 | AI160189.1 | EST_HUMAN | qb67g03.x1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:1705204 3' similar to contains OFR.t1 OFR repetitive element ; |
| 4539 | 17677 | | 4.53 | 2.0E-33 | BE159039.1 | EST_HUMAN | MR0-HT0405-160300-202-d08 HT0405 Homo sapiens cDNA |
| 5100 | 18228 | 31199 | 8.64 | 2.0E-33 | AA626683.1 | EST_HUMAN | ab51g11.r1 Stratagene lung carcinoma 937218 Homo sapiens cDNA clone IMAGE:844388 5' similar to gb:X00734_cds1 TUBULIN BETA-5 CHAIN (HUMAN); |
| 5204 | 18325 | 31294 | 1.6 | 2.0E-33 | 11421332 | NT | Homo sapiens hypothetical protein SIRP-b2 (SIRP-b2), mRNA |
| 5204 | 18325 | 31295 | 1.6 | 2.0E-33 | 11421332 | NT | Homo sapiens hypothetical protein SIRP-b2 (SIRP-b2), mRNA |
| 6553 | 19715 | 33091 | 1.39 | 2.0E-33 | AI277492.1 | EST_HUMAN | ql96d01.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1880161 3' |
| 9301 | 22377 | | 2.15 | 2.0E-33 | AI052256.1 | EST_HUMAN | oz21d03.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1675973 3' similar to gb:M29536 TRANSLATIONAL INITIATION FACTOR 2 BETA SUBUNIT (HUMAN); |
| 9 | 13247 | | 1.61 | 1.0E-33 | AF003528.1 | NT | Homo sapiens X-linked anhidroitic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 7565 | 20637 | 34113 | 0.86 | 1.0E-33 | M13975.1 | NT | Homo sapiens protein kinase C beta-II type (PRKCB1) mRNA, complete cds |

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Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10227 | 26229 | | 1.4 | 1.0E-33 | U60822.1 | NT | Human dystrophin (DMD) gene, exons 7, 8 and 9, and partial cds |
| 11602 | 24655 | 38340 | 1.56 | 1.0E-33 | AW996818.1 | EST_HUMAN | QV3-BN0047-230200-102-b03 BN0047 Homo sapiens cDNA |
| 11962 | 24947 | 38652 | 2.44 | 1.0E-33 | U60822.1 | NT | Human dystrophin (DMD) gene, exons 7, 8 and 9, and partial cds |
| 12768 | 25511 | | 1.25 | 1.0E-33 | AW904491.1 | EST_HUMAN | RC5-NN1055-260400-021-G03 NN1055 Homo sapiens cDNA |
| 12929 | 13247 | | 5.7 | 1.0E-33 | AF003528.1 | NT | Homo sapiens X-linked anhidroitic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 12960 | 25626 | 31979 | 2.19 | 1.0E-33 | AV727809.1 | EST_HUMAN | AV727809 HTC Homo sapiens cDNA clone HTCCNC12 5' |
| 13179 | 25766 | | 4.77 | 9.0E-34 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 2240 | 15373 | 28501 | 0.96 | 8.0E-34 | 8922751 | NT | Homo sapiens hypothetical protein FLJ10900 (FLJ10900), mRNA |
| 4620 | 17767 | 30739 | 1.93 | 8.0E-34 | BE062570.1 | EST_HUMAN | QV2-BT0258-071299-019-g07 BT0258 Homo sapiens cDNA |
| 7974 | 21024 | 34537 | 0.67 | 8.0E-34 | BE069882.1 | EST_HUMAN | MR4-BT0399-200100-001-h03 BT0399 Homo sapiens cDNA |
| 1476 | 14629 | 27714 | 2.5 | 7.0E-34 | T70845.1 | EST_HUMAN | yd15e05.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:108320 5' |
| 10204 | 14629 | 27714 | 0.54 | 7.0E-34 | T70845.1 | EST_HUMAN | yd15e05.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:108320 5' |
| 12482 | 25334 | | 3.85 | 7.0E-34 | H12866.1 | EST_HUMAN | yj14c10.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:148722 5' |
| 483 | 13677 | 26711 | 1.74 | 6.0E-34 | U10991.1 | NT | Human G2 protein mRNA, partial cds |
| 483 | 13677 | 26712 | 1.74 | 6.0E-34 | U10991.1 | NT | Human G2 protein mRNA, partial cds |
| 5247 | 18368 | 31335 | 1.58 | 6.0E-34 | AW998611.1 | EST_HUMAN | PM0-BN0065-100300-001-c06 BN0065 Homo sapiens cDNA |
| 12290 | 25215 | 32099 | 2.22 | 6.0E-34 | U03686.1 | NT | Mus musculus DAB/2J hair-specific (hacl-1) gene |
| 1929 | 15072 | | 3.15 | 5.0E-34 | 7706500 | NT | Homo sapiens Npw38-binding protein NpwBP (LOC51729), mRNA |
| 5173 | 18295 | 31257 | 5.24 | 5.0E-34 | U30883.1 | NT | Human splicing factor SRp55-1 (SRp-55) mRNA, complete cds |
| 9067 | 22146 | 35693 | 1.17 | 5.0E-34 | AF078779.1 | NT | Rattus norvegicus putative four repeat ion channel mRNA, complete cds |
| 10890 | 23974 | 37605 | 2.02 | 5.0E-34 | AB037856.1 | NT | Homo sapiens mRNA for KIAA1435 protein, partial cds |
| 11532 | 24588 | | 1.93 | 5.0E-34 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 2054 | 15195 | 28309 | 2.09 | 4.0E-34 | AI804667.1 | EST_HUMAN | tt94c06.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2249194 3' |
| 3241 | 16415 | 29430 | 0.9 | 4.0E-34 | 5803166 | NT | Homo sapiens splicing factor 3a, subunit 3, 60kD (SF3A3), mRNA |
| 5981 | 19166 | 32486 | 0.62 | 4.0E-34 | AA861773.1 | EST_HUMAN | ak35c01.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1407936 3' |
| 9238 | 22315 | 35857 | 0.83 | 4.0E-34 | BF209778.1 | EST_HUMAN | 601874950F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4102213 5' |
| 6361 | 19531 | 32890 | 0.66 | 3.0E-34 | M37277.1 | NT | Human Ig germline H-chain D-region genes, partial cds |
| 11420 | 24481 | | 2.96 | 3.0E-34 | BF035327.1 | EST_HUMAN | 601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 9152 | 22230 | 35774 | 0.75 | 2.0E-34 | AI678101.1 | EST_HUMAN | wd35g06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2330170 3' similar to contains MER29.t2 MER29 repetitive element ; |
| 9152 | 22230 | 35775 | 0.75 | 2.0E-34 | AI678101.1 | EST_HUMAN | wd35g06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2330170 3' similar to contains MER29.t2 MER29 repetitive element ; |
| 11431 | 24492 | 38156 | 8.54 | 2.0E-34 | P51805 | SWISSPROT | PLEXIN 4 PRECURSOR (TRANSMEMBRANE PROTEIN SEX) |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11431 | 24492 | 38157 | 8.54 | 2.0E-34 | P51805 | SWISSPROT | PLEXIN 4 PRECURSOR (TRANSMEMBRANE PROTEIN SEX) |
| 1534 | 14687 | 27767 | 10.13 | 1.0E-34 | P12236 | SWISSPROT | ADP,ATP CARRIER PROTEIN, LIVER ISOFORM T2 (ADP/ATP TRANSLOCASE 3) (ADENINE NUCLEOTIDE TRANSLOCATOR 3) (ANT 3) |
| 1738 | 14887 | | 7.18 | 1.0E-34 | AU136024.1 | EST_HUMAN | AU136024 PLACE1 Homo sapiens cDNA clone PLACE1003383 5' |
| 3764 | 16925 | 29927 | 2.51 | 1.0E-34 | AF003528.1 | NT | Homo sapiens X-linked anhidroitic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 4181 | 17331 | 30323 | 0.79 | 1.0E-34 | AY009397.1 | NT | Homo sapiens WNT3 precursor (WNT3) mRNA, complete cds |
| 4181 | 17331 | 30324 | 0.79 | 1.0E-34 | AY009397.1 | NT | Homo sapiens WNT3 precursor (WNT3) mRNA, complete cds |
| 4602 | 17739 | | 8.26 | 1.0E-34 | BE071414.1 | EST_HUMAN | RC2-BT0506-240400-016-h08 BT0506 Homo sapiens cDNA |
| 6266 | 19440 | 32787 | 2.26 | 1.0E-34 | BE874052.1 | EST_HUMAN | 601484430F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3886999 5' |
| 6266 | 19440 | 32788 | 2.26 | 1.0E-34 | BE874052.1 | EST_HUMAN | 601484430F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3886999 5' |
| 9527 | 22592 | 36163 | 0.64 | 1.0E-34 | P23266 | SWISSPROT | OLFACTORY RECEPTOR-LIKE PROTEIN F5 |
| 9898 | 22938 | 36523 | 8.07 | 1.0E-34 | AL036635.1 | EST_HUMAN | DKFZp564A1563_r1 564 (synonym: hfbr2) Homo sapiens cDNA clone DKFZp564A1563 5' |
| 11459 | 24518 | 38186 | 1.51 | 1.0E-34 | BE781790.1 | EST_HUMAN | 601470592F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3873478 5' |
| 11459 | 24518 | 38187 | 1.51 | 1.0E-34 | BE781790.1 | EST_HUMAN | 601470592F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3873478 5' |
| 11473 | 24532 | 38202 | 2.92 | 1.0E-34 | 11439599 | NT | Homo sapiens nucleobindin 2 (NUCB2), mRNA |
| 12680 | 26125 | | 2.44 | 1.0E-34 | AA807097.1 | EST_HUMAN | oc31c11.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1351316 3' similar to gb:X68203 TYROSINE-PROTEIN KINASE RECEPTOR FLT4 PRECURSOR (HUMAN); |
| 12950 | 25660 | | 5.84 | 1.0E-34 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 3735 | 16896 | 29900 | 1.3 | 9.0E-35 | AW663302.1 | EST_HUMAN | hh77b06.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2968787 5' |
| 232 | 13453 | | 7.21 | 8.0E-35 | 6031190 | NT | Homo sapiens prohibitin (PHB) mRNA |
| 1776 | 14925 | 28019 | 3.63 | 8.0E-35 | BF589937.1 | EST_HUMAN | naa33a08.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3258134 3' similar to TR:O75912 O75912 DIACYLGLYCEROL KINASE IOTA. ; |
| 1776 | 14925 | 28020 | 3.63 | 8.0E-35 | BF589937.1 | EST_HUMAN | naa33a08.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3258134 3' similar to TR:O75912 O75912 DIACYLGLYCEROL KINASE IOTA. ; |
| 4989 | 18118 | 31097 | 2.61 | 8.0E-35 | BF183195.1 | EST_HUMAN | 601809588F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:4040324 5' |
| 10929 | 24011 | 37645 | 1.53 | 8.0E-35 | BE378480.1 | EST_HUMAN | 601236468F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3608513 5' |
| 12404 | 25283 | | 5.89 | 8.0E-35 | BF569282.1 | EST_HUMAN | 602184624T1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300660 3' |
| 6613 | 19773 | 33164 | 1.61 | 7.0E-35 | 11425417 | NT | Homo sapiens phosphatidylinositol glycan, class L (PIGL), mRNA |
| 1445 | 14598 | 27675 | 1.06 | 6.0E-35 | AA757115.1 | EST_HUMAN | ah53h03.s1 Soares_testis_NHT Homo sapiens cDNA clone 1309397 3' |
| 2025 | 15166 | 28271 | 4.63 | 6.0E-35 | 6005975 | NT | Homo sapiens zinc finger protein 208 (ZNF208), mRNA |
| 4164 | 17314 | 30309 | 0.8 | 6.0E-35 | AW297191.1 | EST_HUMAN | UI-H-BW0-ajd-d-09-0-UI.s1 NCI_CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2731433 3' |
| 8081 | 21163 | 34680 | 4.03 | 6.0E-35 | 6005921 | NT | Homo sapiens triple functional domain (PTPRF interacting) (TRIO), mRNA |
| 8906 | 21985 | 35524 | 0.57 | 6.0E-35 | X94232.1 | NT | H.sapiens mRNA for novel T-cell activation protein |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8906 | 21985 | 35525 | 0.57 | 6.0E-35 | X94232.1 | NT | H.sapiens mRNA for novel T-cell activation protein |
| 9867 | 22907 | 36492 | 0.61 | 6.0E-35 | AB002364.1 | NT | Human mRNA for KIAA0366 gene, partial cds |
| 10107 | 23145 | 36743 | 2.97 | 6.0E-35 | AB037786.1 | NT | Homo sapiens mRNA for KIAA1365 protein, partial cds |
| 148 | 13373 | 26406 | 0.61 | 5.0E-35 | AF154830.1 | NT | Homo sapiens carbamyl phosphate synthetase I mRNA, complete cds |
| 1746 | 14895 | 27989 | 2.26 | 5.0E-35 | X63392.1 | NT | H.sapiens immunoglobulin kappa light chain variable region L14 |
| 2844 | 15958 | 29067 | 0.99 | 5.0E-35 | AB007866.2 | NT | Homo sapiens mRNA for KIAA0406 protein, partial cds |
| 3074 | 16250 | 29271 | 2.87 | 5.0E-35 | 6912639 | NT | Homo sapiens Ring1 and YY1 binding protein (RYBP), mRNA |
| 4529 | 17667 | 30653 | 1.72 | 5.0E-35 | AF023268.1 | NT | Homo sapiens clk2 kinase (CLK2), propin1, cote1, glucocerebrosidase (GBA), and metaxin genes, complete cds; metaxin pseudogene and glucocerebrosidase pseudogene; and thrombospondin3 (THBS3) gene, partial cds |
| 8378 | 21459 |  | 4.25 | 5.0E-35 | BE890992.1 | EST_HUMAN | 601431984F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3917229 5' |
| 8405 | 21486 | 35016 | 2.17 | 5.0E-35 | AI208765.1 | EST_HUMAN | qg38c05.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1837448 3' similar to SW:Y249_HUMAN Q92539 HYPOTHETICAL PROTEIN KIAA0249. ; |
| 8405 | 21486 | 35016 | 2.17 | 5.0E-35 | AI208765.1 | EST_HUMAN | qg38c05.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1837448 3' similar to SW:Y249_HUMAN Q92539 HYPOTHETICAL PROTEIN KIAA0249. ; |
| 11451 | 24511 |  | 2.54 | 5.0E-35 | AA001786.1 | EST_HUMAN | zh84f12.r1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:428015 5' |
| 1465 | 14619 | 27703 | 20.46 | 4.0E-35 | BE257907.1 | EST_HUMAN | 601109719F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350405 5' |
| 1862 | 15008 | 28114 | 11.21 | 4.0E-35 | H91193.1 | EST_HUMAN | yu98a07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:241236 5' similar to contains PTR5 repetitive element ; |
| 7358 | 20437 |  | 1.67 | 4.0E-35 | BE350127.1 | EST_HUMAN | ht09g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146256 3' similar to contains MER29.b3 MER29 repetitive element ; |
| 8715 | 21795 | 35332 | 8.05 | 4.0E-35 | AL046596.1 | EST_HUMAN | DKFZp434L148_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434L148 5' |
| 12098 | 25078 | 38786 | 2.5 | 4.0E-35 | AF114156.1 | NT | Homo sapiens Y-linked zinc finger protein (ZFY) gene, complete cds |
| 1610 | 14763 | 27843 | 33.92 | 3.0E-35 | BE268182.1 | EST_HUMAN | 601125260F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3345063 5' |
| 2408 | 15539 |  | 2.64 | 3.0E-35 | AF224492.1 | NT | Homo sapiens phospholipid scramblase 1 gene, complete cds |
| 5456 | 18656 | 31634 | 23.43 | 3.0E-35 | BF433100.1 | EST_HUMAN | 7n25a09.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3565361 3' similar to TR:Q9QZH7 Q9QZH7 F-BOX PROTEIN FBL2. ; |
| 5456 | 18656 | 31635 | 23.43 | 3.0E-35 | BF433100.1 | EST_HUMAN | 7n25a09.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3565361 3' similar to TR:Q9QZH7 Q9QZH7 F-BOX PROTEIN FBL2. ; |
| 9669 | 22738 |  | 1.45 | 3.0E-35 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 10378 | 23413 | 37022 | 1.5 | 3.0E-35 | AW003063.1 | EST_HUMAN | wr03a05.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2480432 3' similar to SW:POL1_HUMAN P10266 RETROVIRUS-RELATED POL POLYPROTEIN [CONTAINS: REVERSE TRANSCRIPTASE ; |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 111 | 16005 | 26372 | 1.25 | 2.0E-35 | N88965.1 | EST_HUMAN | K6932F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone K6932 5' similar to REPETITIVE ELEMENT |
| 1215 | 14376 | 27436 | 1.89 | 2.0E-35 | T11909.1 | EST_HUMAN | A971F Heart Homo sapiens cDNA clone A971 |
| 2292 | 15424 | 28558 | 4.56 | 2.0E-35 | AB018413.1 | NT | Homo sapiens mRNA for Gab2, complete cds |
| 2748 | 15865 | 28976 | 1.13 | 2.0E-35 | AW665005.1 | EST_HUMAN | hi86a12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2979166 3' similar to SW:TR12_HUMAN Q14669 THYROID RECEPTOR INTERACTING PROTEIN 12 ; |
| 3386 | 16556 | 29570 | 1.08 | 2.0E-35 | 6912459 | NT | Homo sapiens Grb2-associated binder 2 (KIAA0571), mRNA |
| 3386 | 16556 | 29571 | 1.08 | 2.0E-35 | 6912459 | NT | Homo sapiens Grb2-associated binder 2 (KIAA0571), mRNA |
| 3647 | 16810 | | 0.77 | 2.0E-35 | AB020702.1 | NT | Homo sapiens mRNA for KIAA0895 protein, partial cds |
| 4019 | 17176 | 30184 | 0.85 | 2.0E-35 | BE247575.1 | EST_HUMAN | TCBAP2E4328 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP4328 |
| 4019 | 17176 | 30185 | 0.85 | 2.0E-36 | BE247575.1 | EST_HUMAN | TCBAP2E4328 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP4328 |
| 4792 | 17927 | | 3.01 | 2.0E-35 | H49239.1 | EST_HUMAN | yq19a12.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:274079 5' |
| 6700 | 18894 | 32186 | 1.93 | 2.0E-35 | BF332417.1 | EST_HUMAN | QV0-BT0701-210400-199-b04 BT0701 Homo sapiens cDNA |
| 7263 | 20336 | 33785 | 0.6 | 2.0E-35 | BE832636.1 | EST_HUMAN | CM2-MT0125-280700-297-G02 MT0125 Homo sapiens cDNA |
| 7253 | 20336 | 33786 | 0.6 | 2.0E-35 | BE832636.1 | EST_HUMAN | CM2-MT0125-280700-297-G02 MT0125 Homo sapiens cDNA |
| 11036 | 24116 | 37749 | 2.93 | 2.0E-35 | X69417.1 | NT | H.sapiens PROS-27 mRNA |
| 12157 | 16556 | 29570 | 1.22 | 2.0E-35 | 6912459 | NT | Homo sapiens Grb2-associated binder 2 (KIAA0571), mRNA |
| 12157 | 16556 | 29571 | 1.22 | 2.0E-35 | 6912459 | NT | Homo sapiens Grb2-associated binder 2 (KIAA0571), mRNA |
| 12342 | 25247 | 32111 | 1.33 | 2.0E-35 | BE904978.1 | EST_HUMAN | 601496774F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3898699 5' |
| 12342 | 25247 | 32112 | 1.33 | 2.0E-35 | BE904978.1 | EST_HUMAN | 601496774F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3898699 5' |
| 12931 | 25614 | | 7.22 | 2.0E-35 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 13056 | 16005 | 26372 | 1.74 | 2.0E-35 | N88965.1 | EST_HUMAN | K6932F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone K6932 5' similar to REPETITIVE ELEMENT |
| 47 | 13286 | 26295 | 5.76 | 1.0E-35 | AA631949.1 | EST_HUMAN | fmfc16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 47 | 13286 | 26296 | 5.76 | 1.0E-35 | AA631949.1 | EST_HUMAN | fmfc16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 771 | 13952 | 27000 | 35.82 | 1.0E-35 | AW389473.1 | EST_HUMAN | IL2-ST0162-131099-006-d12 ST0162 Homo sapiens cDNA |
| 771 | 13952 | 27001 | 35.82 | 1.0E-35 | AW389473.1 | EST_HUMAN | IL2-ST0162-131099-006-d12 ST0162 Homo sapiens cDNA |
| 932 | 14107 | | 1.28 | 1.0E-35 | T87947.1 | EST_HUMAN | yd93a01.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:115752 5' similar to SP:A44282 A44282 RETROVIRUS-RELATED POL POLYPROTEIN - HUMAN ; |
| 2607 | 15730 | 28847 | 1.89 | 1.0E-35 | 7705994 | NT | Homo sapiens hypothetical protein (LOC51233), mRNA |
| 2826 | 15940 | 29050 | 1.34 | 1.0E-35 | BE350127.1 | EST_HUMAN | ht09g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146256 3' similar to contains MER29.b3 MER29 repetitive element ; |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2826 | 15940 | 29051 | 1.34 | 1.0E-35 | BE350127.1 | EST_HUMAN | ht09g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146256 3' similar to contains MER29.b3 MER29 repetitive element ; |
| 3212 | 16386 | 29397 | 1.87 | 1.0E-35 | 6006030 | NT | Homo sapiens transcription elongation factor B (SIII), polypeptide 1-like (TCEB1L) mRNA |
| 3232 | 16406 | 29418 | 1.67 | 1.0E-35 | AV650422.1 | EST_HUMAN | AV650422 GLC Homo sapiens cDNA clone GLCCEF06 3' |
| 3232 | 16406 | 29419 | 1.67 | 1.0E-35 | AV650422.1 | EST_HUMAN | AV650422 GLC Homo sapiens cDNA clone GLCCEF06 3' |
| 4542 | 17680 | 30661 | 4.82 | 1.0E-35 | 7656905 | NT | Mus musculus activin receptor interacting protein 1 (Arip1-pending), mRNA |
| 4542 | 17680 | 30662 | 4.82 | 1.0E-35 | 7656905 | NT | Mus musculus activin receptor interacting protein 1 (Arip1-pending), mRNA |
| 5627 | 18821 | 31896 | 1.48 | 1.0E-35 | 11526236 | NT | Homo sapiens chromatin assembly factor 1, subunit B (p60) (CHAF1B), mRNA |
| 7135 | 18561 | 31475 | 0.74 | 1.0E-35 | AW808665.1 | EST_HUMAN | MR1-ST0111-111199-011-d07 ST0111 Homo sapiens cDNA |
| 7135 | 18561 | 31476 | 0.74 | 1.0E-35 | AW808665.1 | EST_HUMAN | MR1-ST0111-111199-011-d07 ST0111 Homo sapiens cDNA |
| 7652 | 20720 | 34196 | 0.99 | 1.0E-35 | AB033105.1 | NT | Homo sapiens mRNA for KIAA1279 protein, partial cds |
| 7819 | 20874 | 34373 | 0.91 | 1.0E-35 | 11418002 | NT | Homo sapiens KIAA0645 gene product (KIAA0645), mRNA |
| 9742 | 26861 | 36383 | 2.46 | 1.0E-35 | AU158595.1 | EST_HUMAN | AU158595 PLACE3 Homo sapiens cDNA clone PLACE3000382 3' |
| 9742 | 25861 | 36384 | 2.46 | 1.0E-35 | AU158595.1 | EST_HUMAN | AU158595 PLACE3 Homo sapiens cDNA clone PLACE3000382 3' |
| 10805 | 23838 | 37462 | 0.72 | 1.0E-35 | BF589594.1 | EST_HUMAN | naa06d06.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:3254051 3' similar to TR:O31341 O31341 BETA-GALACTOSIDASE ; |
| 10805 | 23838 | 37463 | 0.72 | 1.0E-35 | BF589594.1 | EST_HUMAN | naa06d06.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:3254051 3' similar to TR:O31341 O31341 BETA-GALACTOSIDASE ; |
| 12055 | 25036 | 38743 | 1.49 | 1.0E-35 | AB028980.1 | NT | Homo sapiens mRNA for KIAA1057 protein, partial cds |
| 12055 | 25036 | 38744 | 1.49 | 1.0E-35 | AB028980.1 | NT | Homo sapiens mRNA for KIAA1057 protein, partial cds |
| 12062 | 25043 |  | 2.04 | 1.0E-35 | AI525119.1 | EST_HUMAN | promrna-7.D01.r bvtumor Homo sapiens cDNA 5' |
| 12188 | 26077 |  | 6.35 | 1.0E-35 | 11418274 | NT | Homo sapiens fibulin 1 (FBLN1), mRNA |
| 12405 | 25284 |  | 1.26 | 1.0E-35 | 11418110 | NT | Homo sapiens casein kinase 1, epsilon (CSNK1E), mRNA |
| 12806 | 25539 |  | 2.49 | 1.0E-35 | BE792832.1 | EST_HUMAN | 601584833F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3938985 5' |
| 6131 | 19310 | 32650 | 0.67 | 8.0E-36 | X78479.1 | NT | B.bovis BBSc mRNA for scinderin |
| 9430 | 22504 | 36070 | 0.76 | 8.0E-36 | AA348480.1 | EST_HUMAN | EST54938 Hippocampus II Homo sapiens cDNA 5' end similar to similar to endogenous retrovirus 9, 5' LTR |
| 2997 | 16173 | 29192 | 1.53 | 7.0E-36 | AW857579.1 | EST_HUMAN | CM1-CT0315-091299-063-d07 CT0315 Homo sapiens cDNA |
| 3188 | 16363 |  | 5.25 | 7.0E-36 | 4557498 | NT | Homo sapiens C-terminal binding protein 2 (CTBP2) mRNA |
| 6273 | 18392 | 31360 | 1.09 | 7.0E-36 | Q27409 | SWISSPROT | ADHESIVE PLAQUE MATRIX PROTEIN PRECURSOR (FOOT PROTEIN 1) (MGFP1) (MGFP-1) |
| 5273 | 18392 | 31361 | 1.09 | 7.0E-36 | Q27409 | SWISSPROT | ADHESIVE PLAQUE MATRIX PROTEIN PRECURSOR (FOOT PROTEIN 1) (MGFP1) (MGFP-1) |
| 7832 | 20887 | 34389 | 6.31 | 7.0E-36 | U06672.1 | NT | Human carcinoembryonic antigen gene family member 12 (CGM12) gene, exons L and L/N |
| 7832 | 20887 | 34390 | 6.31 | 7.0E-36 | U06672.1 | NT | Human carcinoembryonic antigen gene family member 12 (CGM12) gene, exons L and L/N |
| 12570 | 25388 | 32040 | 27.38 | 7.0E-36 | AF052051.1 | NT | Homo sapiens glutathione transferase A4 gene, exon 1 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2060 | 16201 | 28316 | 1.92 | 6.0E-36 | 7706622 | NT | Homo sapiens ninjurin 2 (NINJ2), mRNA |
| 2490 | 15617 |  | 5.59 | 6.0E-36 | AB035346.1 | NT | Homo sapiens TCL6 gene, exon 12 |
| 3729 | 16890 | 29894 | 0.59 | 6.0E-36 | BF515101.1 | EST_HUMAN | UI-H-BW1-anv-c-12-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3083542 3' |
| 5446 | 18646 | 31624 | 7.17 | 6.0E-36 | AI435169.1 | EST_HUMAN | th93b06.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2126195 3' similar to gb:M11949 PANCREATIC SECRETORY TRYPSIN INHIBITOR PRECURSOR (HUMAN); |
| 7258 | 20341 | 33782 | 3.03 | 6.0E-36 | AW780143.1 | EST_HUMAN | ho06h02.x1 NCI_CGAP_Co14 Homo sapiens cDNA clone IMAGE:3036627 3' similar to SW:IMA2_HUMAN P52292 IMPORTIN ALPHA-2 SUBUNIT ; |
| 8853 | 21932 | 35471 | 4.62 | 6.0E-36 | AF208161.1 | NT | Homo sapiens syncytin precursor, mRNA, complete cds |
| 10430 | 23465 |  | 0.63 | 6.0E-36 | C16927.1 | EST_HUMAN | C16927 Clontech human aorta polyA+ mRNA (#6572) Homo sapiens cDNA clone GEN-535C11 5' |
| 11841 | 24830 | 38521 | 3.49 | 6.0E-36 | AI380499.1 | EST_HUMAN | tf95c09.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2107024 3' similar to contains MER9.b2 MER9 repetitive element ; |
| 140 | 13366 | 26399 | 15.16 | 5.0E-36 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 2809 | 15923 | 29033 | 21.08 | 5.0E-36 | BE368436.1 | EST_HUMAN | 601285567F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3607289 5' |
| 3700 | 16861 | 29863 | 3.24 | 5.0E-36 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 4909 | 18039 | 31028 | 1.31 | 5.0E-36 | 5729729 | NT | Homo sapiens API5-like 1 (API5L1), mRNA |
| 4909 | 18039 | 31029 | 1.31 | 5.0E-36 | 5729729 | NT | Homo sapiens API5-like 1 (API5L1), mRNA |
| 7966 | 21016 | 34528 | 0.59 | 5.0E-36 | 11079227 | NT | Homo sapiens N-ethylmaleimide-sensitive factor (NSF), mRNA |
| 12156 | 13366 | 26399 | 6.11 | 5.0E-36 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 12458 | 25322 | 32095 | 2.36 | 5.0E-36 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 1252 | 14411 | 27473 | 1.57 | 4.0E-36 | BE010038.1 | EST_HUMAN | PM3-BN0176-100400-001-g04 BN0176 Homo sapiens cDNA |
| 1677 | 14829 | 27913 | 1.36 | 4.0E-36 | BE382574.1 | EST_HUMAN | 601298574F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3628386 5' |
| 2297 | 15429 |  | 4.14 | 4.0E-36 | AW247772.1 | EST_HUMAN | 2820020.5prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2820020 5' |
| 3435 | 16603 | 29622 | 1.1 | 4.0E-36 | BE389299.1 | EST_HUMAN | 601282266F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3604168 5' |
| 3435 | 16603 | 29623 | 1.1 | 4.0E-36 | BE389299.1 | EST_HUMAN | 601282266F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3604168 5' |
| 4877 | 18008 | 30992 | 0.69 | 4.0E-36 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 5833 | 19024 |  | 0.96 | 4.0E-36 | R64023.1 | EST_HUMAN | yi19f05.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:139713 5' |
| 6180 | 19356 | 32704 | 2.49 | 4.0E-36 | 11497041 | NT | Homo sapiens a disintegrin and metalloproteinase domain 22 (ADAM22), trancript variant 3, mRNA |
| 7831 | 20886 | 34388 | 1.78 | 4.0E-36 | M33320.1 | NT | Human platelet Glycoprotein IIb (GPIIb) gene, exons 2-29 |
| 8752 | 21831 | 35369 | 1.45 | 4.0E-36 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 8752 | 21831 | 35370 | 1.45 | 4.0E-36 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 11235 | 24304 | 37941 | 3.13 | 4.0E-36 | AA400370.1 | EST_HUMAN | zu69c10.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:743250 5' |
| 12476 | 25328 |  | 1.91 | 4.0E-36 | 11420516 | NT | Homo sapiens nuclear factor of activated T-cells, cytoplasmic 2 (NFATC2), mRNA |
| 12520 | 25951 |  | 4.27 | 4.0E-36 | AV753629.1 | EST_HUMAN | AV753629 TP Homo sapiens cDNA clone TPGABH01 5' |
| 714 | 13896 | 26934 | 2.93 | 3.0E-36 | AF099810.1 | NT | Homo sapiens neurexin III-alpha gene, partial cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2373 | 15504 | 28630 | 1.19 | 3.0E-36 | 7662401 | NT | Homo sapiens KIAA0952 protein (KIAA0952), mRNA |
| 4624 | 17761 | 30743 | 7.5 | 3.0E-36 | 10181139 | NT | Mus musculus junctophilin 1 (Jp1-pending), mRNA |
| 11368 | 24429 | 38086 | 1.84 | 3.0E-36 | BF035327.1 | EST_HUMAN | 601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 3238 | 16412 | 29427 | 2.5 | 2.0E-36 | BE259267.1 | EST_HUMAN | 601106343F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3342706 5' |
| 5074 | 18202 | 31174 | 10.78 | 2.0E-36 | AW880376.1 | EST_HUMAN | QV0-OT0030-240300-174-h04 OT0030 Homo sapiens cDNA |
| 5603 | 18798 | 31848 | 2.68 | 2.0E-36 | AF267747.1 | NT | Mus musculus p47-phox gene, complete cds |
| 5970 | 19156 | 32471 | 3.75 | 2.0E-36 | T08756.1 | EST_HUMAN | EST06648 Infant Brain, Bento Soares Homo sapiens cDNA clone HIBBJ28 5' end |
| 6706 | 19864 | 33254 | 13.94 | 2.0E-36 | T69629.1 | EST_HUMAN | yc44a07.r1 Stratagene liver (#937224) Homo sapiens cDNA clone IMAGE:83508 5' |
| 9588 | 22643 | 36212 | 0.94 | 2.0E-36 | BF512794.1 | EST_HUMAN | UI-H-BW1-amu-e-11-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3071132 3' |
| 9749 | 22687 | 36258 | 0.74 | 2.0E-36 | 4507848 | NT | Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA |
| 9749 | 22687 | 36259 | 0.74 | 2.0E-36 | 4507848 | NT | Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA |
| 908 | 14083 | 27148 | 1.74 | 1.0E-36 | BE409310.1 | EST_HUMAN | 601300938F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3635480 5' |
| 2212 | 15346 | 28474 | 1.71 | 1.0E-36 | BE146523.1 | EST_HUMAN | RC1-HT0217-131199-021-h07 HT0217 Homo sapiens cDNA |
| 2212 | 15346 | 28475 | 1.71 | 1.0E-36 | BE146523.1 | EST_HUMAN | RC1-HT0217-131199-021-h07 HT0217 Homo sapiens cDNA |
| 2275 | 15408 | 28538 | 1.83 | 1.0E-36 | BF673761.1 | EST_HUMAN | 602136493F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4272886 5' |
| 3425 | 16594 |  | 3.33 | 1.0E-36 | AF156962.1 | NT | Homo sapiens human endogenous retrovirus W proC6-19 protease (pro) gene, partial cds |
| 5847 | 19037 | 32344 | 0.64 | 1.0E-36 | AL044446.1 | EST_HUMAN | DKFZp434G022_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434G022 5' |
| 6020 | 19203 | 32523 | 1.23 | 1.0E-36 | 4827064 | NT | Homo sapiens zinc finger protein 147 (estrogen-responsive finger protein) (ZNF147) mRNA |
| 6312 | 19484 |  | 4.27 | 1.0E-36 | AI867714.1 | EST_HUMAN | wb37c12.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2307862 3' similar to contains Alu repetitive element; |
| 6519 | 19684 | 33055 | 1.9 | 1.0E-36 | R25012.1 | EST_HUMAN | yg36g10.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:34529 5' similar to SP:CAHP_HUMAN P35219 CARBONIC ANHYDRASE-RELATED PROTEIN ; |
| 6519 | 19684 | 33056 | 1.9 | 1.0E-36 | R25012.1 | EST_HUMAN | yg36g10.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:34529 5' similar to SP:CAHP_HUMAN P35219 CARBONIC ANHYDRASE-RELATED PROTEIN ; |
| 6820 | 19973 | 33381 | 0.72 | 1.0E-36 | AL120542.1 | EST_HUMAN | DKFZp761A229_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761A229 5' |
| 8147 | 21229 | 34747 | 4.06 | 1.0E-36 | AA148034.1 | EST_HUMAN | zo51a12.r1 Stratagene endothelial cell 937223 Homo sapiens cDNA clone IMAGE:590398 5' |
| 8147 | 21229 | 34748 | 4.06 | 1.0E-36 | AA148034.1 | EST_HUMAN | zo51a12.r1 Stratagene endothelial cell 937223 Homo sapiens cDNA clone IMAGE:590398 5' |
| 8243 | 21325 | 34841 | 0.76 | 1.0E-36 | AA420467.1 | EST_HUMAN | nc60e08.r1 NCI_CGAP_Pr1 Homo sapiens cDNA clone IMAGE:745670 |
| 8243 | 21325 | 34842 | 0.76 | 1.0E-36 | AA420467.1 | EST_HUMAN | nc60e08.r1 NCI_CGAP_Pr1 Homo sapiens cDNA clone IMAGE:745670 |
| 8373 | 21454 | 34977 | 0.68 | 1.0E-36 | AU141688.1 | EST_HUMAN | AU141688 THYRO1 Homo sapiens cDNA clone THYRO1001033 5' |
| 8373 | 21454 | 34978 | 0.68 | 1.0E-36 | AU141688.1 | EST_HUMAN | AU141688 THYRO1 Homo sapiens cDNA clone THYRO1001033 5' |
| 9229 | 22307 | 35850 | 3.33 | 1.0E-36 | AW103658.1 | EST_HUMAN | xe82b07.x1 NCI_CGAP_Bm35 Homo sapiens cDNA clone IMAGE:2614357 3' |
| 10320 | 23355 | 36964 | 3.83 | 1.0E-36 | BF364169.1 | EST_HUMAN | QV3-NN1023-010600-199-h01 NN1023 Homo sapiens cDNA |
| 10534 | 23569 | 37176 | 0.64 | 1.0E-36 | AW855868.1 | EST_HUMAN | RC3-CT0279-040500-017-a10 CT0279 Homo sapiens cDNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10534 | 23569 | 37177 | 0.64 | 1.0E-36 | AW855868.1 | EST_HUMAN | RC3-CT0279-040500-017-a10 CT0279 Homo sapiens cDNA |
| 11190 | 24259 | 37895 | 2.55 | 1.0E-36 | AW897636.1 | EST_HUMAN | CM3-NN0061-140400-147-h12 NN0061 Homo sapiens cDNA |
| 11662 | 24741 | 38432 | 3.55 | 1.0E-36 | AW504143.1 | EST_HUMAN | UI-HF-BN0-ale-c-03-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3079277 5' |
| 12048 | 25029 |  | 10.8 | 1.0E-36 | 11645901 | NT | Homo sapiens PP3227 protein (PP3227), mRNA |
| 12340 | 25245 |  | 2.93 | 1.0E-36 | 11418177 | NT | Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA |
| 12835 | 25556 |  | 5.76 | 1.0E-36 | AL163213.2 | NT | Homo sapiens chromosome 21 segment HS21C013 |
| 13131 | 25737 |  | 2.76 | 1.0E-36 | AF202723.1 | NT | Homo sapiens Sad1 unc-84 domain protein 2 (SUN2) mRNA, partial cds |
| 7539 | 20612 | 34087 | 2.27 | 9.0E-37 | AW009277.1 | EST_HUMAN | ws80b07.x1 NCI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:2504245 3' |
| 7539 | 20612 | 34088 | 2.27 | 9.0E-37 | AW009277.1 | EST_HUMAN | ws80b07.x1 NCI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:2504245 3' |
| 12619 | 25417 |  | 3.57 | 9.0E-37 | W22618.1 | EST_HUMAN | 73D4 Human retina cDNA Tsp509I-cleaved sublibrary Homo sapiens cDNA not directional |
| 3436 | 16604 | 29624 | 1.4 | 8.0E-37 | 4757979 | NT | Homo sapiens chimerin (chimaerin) 2 (CHN2) mRNA |
| 6363 | 18566 |  | 1.7 | 8.0E-37 | BE698077.1 | EST_HUMAN | CM0-UT0003-050800-503-d09 UT0003 Homo sapiens cDNA |
| 5949 | 19135 | 32448 | 3.48 | 8.0E-37 | BE350127.1 | EST_HUMAN | ht09g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146256 3' similar to contains MER29.b3 MER29 repetitive element ; |
| 6949 | 19135 | 32449 | 3.48 | 8.0E-37 | BE350127.1 | EST_HUMAN | ht09g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146256 3' similar to contains MER29.b3 MER29 repetitive element ; |
| 5998 | 19183 | 32505 | 7.08 | 8.0E-37 | AW840840.1 | EST_HUMAN | RC1-CN0008-210100-012-a09_1 CN0008 Homo sapiens cDNA |
| 8068 | 21150 | 34670 | 6.2 | 8.0E-37 | X87344.1 | NT | H.sapiens DMA, DMB, HLA-Z1, IPP2, LMP2, TAP1, LMP7, TAP2, DOB, DQB2 and RING8, 9, 13 and 14 genes |
| 1313 | 14469 |  | 4.92 | 7.0E-37 | AL042800.1 | EST_HUMAN | DKFZp434E0422_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434E0422 5' |
| 5228 | 18350 | 31320 | 3.04 | 7.0E-37 | AW968823.1 | EST_HUMAN | EST380899 MAGE resequences, MAGJ Homo sapiens cDNA |
| 10994 | 24073 | 37706 | 8.66 | 7.0E-37 | AI817700.1 | EST_HUMAN | wk25b11.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2413341 3' similar to contains PTR5.t2 PTR5 repetitive element ; |
| 11134 | 24206 | 37831 | 1.89 | 7.0E-37 | AI536702.1 | EST_HUMAN | tm87g03.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2166140 3' similar to contains L1.b3 L1 repetitive element ; |
| 8634 | 21714 | 35251 | 0.59 | 6.0E-37 | AF169689.1 | NT | Homo sapiens protocadherin alpha 10 alternate isoform (PCDH-alpha10) mRNA, complete cds |
| 12864 | 25575 |  | 2.3 | 6.0E-37 | U78308.1 | NT | Human olfactory receptor olfr17-201-1 (OR17-201-1) gene, olfactory receptor olfr17-32 (OR17-32) gene and olfactory receptor pseudo_olfr17-01 (OR17-01) pseudogene, complete cds |
| 12984 | 25641 |  | 4.5 | 6.0E-37 | AF202723.1 | NT | Homo sapiens Sad1 unc-84 domain protein 2 (SUN2) mRNA, partial cds |
| 6218 | 19393 | 32741 | 4.3 | 5.0E-37 | AA307123.1 | EST_HUMAN | EST178035 Colon carcinoma (HCC) cell line Homo sapiens cDNA 5' end |
| 6218 | 19393 | 32742 | 4.3 | 5.0E-37 | AA307123.1 | EST_HUMAN | EST178035 Colon carcinoma (HCC) cell line Homo sapiens cDNA 5' end |
| 8956 | 22035 | 35576 | 1.03 | 5.0E-37 | AV750211.1 | EST_HUMAN | AV750211 NPC Homo sapiens cDNA clone NPCBGH09 5' |
| 11160 | 24231 |  | 4.02 | 5.0E-37 | 7657117 | NT | Homo sapiens glycine C-acetyltransferase (2-amino-3-ketobutyrate-CoA ligase) (GCAT), mRNA |
| 12335 | 25242 |  | 3.63 | 5.0E-37 | AF149773.1 | NT | Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2495 | 15622 | 28741 | 2.97 | 4.0E-37 | AA702794.1 | EST_HUMAN | zi90b04.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:448015 3' |
| 6416 | 19585 | 32947 | 0.68 | 4.0E-37 | AW794502.1 | EST_HUMAN | RC6-UM0014-210200-021-H05 UM0014 Homo sapiens cDNA |
| 9556 | 22621 | 36192 | 0.56 | 4.0E-37 | AA843806.1 | EST_HUMAN | ak09c02.s1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1405442 3' |
| 2074 | 15214 | 28332 | 3.42 | 3.0E-37 | AL048956.1 | EST_HUMAN | DKFZp434L2418_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434L2418 |
| 2074 | 15214 | 28333 | 3.42 | 3.0E-37 | AL048956.1 | EST_HUMAN | DKFZp434L2418_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434L2418 |
| 2581 | 15706 |  | 1.54 | 3.0E-37 | AW961150.1 | EST_HUMAN | EST373222 MAGE resequences, MAGF Homo sapiens cDNA |
| 3030 | 16206 |  | 4.02 | 3.0E-37 | AW961150.1 | EST_HUMAN | EST373222 MAGE resequences, MAGF Homo sapiens cDNA |
| 5985 | 19170 | 32492 | .0.7 | 3.0E-37 | AL138274.1 | EST_HUMAN | DKFZp547G067_r1 547 (synonym: hfbr1) Homo sapiens cDNA clone DKFZp547G067 5' |
| 7728 | 20790 | 34279 | 0.72 | 3.0E-37 | AI749952.1 | EST_HUMAN | at34c05.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2373896 3' similar to TR:Q13537 Q13537 SIMILAR TO POGO ELEMENT. ; |
| 392 | 13629 | 26666 | 0.89 | 2.0E-37 | D89790.1 | NT | Homo sapiens mRNA for AML1, complete cds |
| 392 | 13629 | 26667 | 0.89 | 2.0E-37 | D89790.1 | NT | Homo sapiens mRNA for AML1, complete cds |
| 1105 | 14270 | 27328 | 2.53 | 2.0E-37 | AU131202.1 | EST_HUMAN | AU131202 NT2RP3 Homo sapiens cDNA clone NT2RP3002166 5' |
| 1105 | 14270 | 27329 | 2.53 | 2.0E-37 | AU131202.1 | EST_HUMAN | AU131202 NT2RP3 Homo sapiens cDNA clone NT2RP3002166 5' |
| 2021 | 15162 | 28287 | 1.32 | 2.0E-37 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 3999 | 17156 | 30162 | 6.71 | 2.0E-37 | 4503210 | NT | Homo sapiens cytochrome P450, subfamily XXVIIA (steroid 27-hydroxylase, cerebrotendinous xanthomatosis), polypeptide 1 (CYP27A1b) mRNA |
| 4360 | 17503 | 30485 | 0.6 | 2.0E-37 | 4826685 | NT | Homo sapiens DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 1 (DDX1) mRNA |
| 5504 | 18703 |  | 0.9 | 2.0E-37 | BF035327.1 | EST_HUMAN | 601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 6676 | 19835 | 33224 | 0.6 | 2.0E-37 | 11990617 | NT | Homo sapiens mouse thiamin pyrophosphokinase homolog (TPK1), mRNA |
| 6798 | 19953 | 33353 | 3.72 | 2.0E-37 | AA346720.1 | EST_HUMAN | EST52931 Fetal heart II Homo sapiens cDNA 5' end |
| 8185 | 21267 | 34790 | 0.47 | 2.0E-37 | BE537764.1 | EST_HUMAN | 601067534F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3453657 5' |
| 8185 | 21267 | 34791 | 0.47 | 2.0E-37 | BE537764.1 | EST_HUMAN | 601067534F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3453657 5' |
| 8227 | 21309 | 34829 | 2.32 | 2.0E-37 | BF204032.1 | EST_HUMAN | 601869157F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4111406 5' |
| 11856 | 24844 | 38541 | 10.07 | 2.0E-37 | AF176013.1 | NT | Homo sapiens J domain containing protein 1 isoform b (JDP1) mRNA, complete cds |
| 12797 | 25770 |  | 1.44 | 2.0E-37 | 11417972 | NT | Homo sapiens pescadillo (zebrafish) homolog 1, containing BRCT domain (PES1), mRNA |
| 13184 | 25770 |  | 4.19 | 2.0E-37 | 11417972 | NT | Homo sapiens pescadillo (zebrafish) homolog 1, containing BRCT domain (PES1), mRNA |
| 2154 | 15290 | 28417 | 6.95 | 1.0E-37 | AL163281.2 | NT | Homo sapiens chromosome 21 segment HS21C081 |
| 3267 | 16441 |  | 1.03 | 1.0E-37 | AW862082.1 | EST_HUMAN | RC3-CT0347-210400-016-h03 CT0347 Homo sapiens cDNA |
| 5055 | 18183 | 31158 | 2.34 | 1.0E-37 | BF371719.1 | EST_HUMAN | QV0-FN0180-280700-318-c10 FN0180 Homo sapiens cDNA |
| 6127 | 19306 |  | 0.89 | 1.0E-37 | 7305360 | NT | Mus musculus otogelin (Otog), mRNA |
| 8409 | 21490 | 35019 | 1.12 | 1.0E-37 | BE546032.1 | EST_HUMAN | 601072419F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3458308 5' |
| 8933 | 22012 | 35551 | 3.59 | 1.0E-37 | AA171406.1 | EST_HUMAN | zp21b02.r1 Stratagene neuroepithelium (#937231) Homo sapiens cDNA clone IMAGE:610059 5' similar to contains L1.t2 L1 repetitive element ; |

### Table 4

### Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10937 | 24019 | 37652 | 2.19 | 1.0E-37 | M22878.1 | NT | Human somatic cytochrome c (HC1) processed pseudogene, complete cds |
| 12671 | 25447 | | 1.94 | 1.0E-37 | BE771814.1 | EST_HUMAN | CM3-FT0096-140700-243-d07 FT0096 Homo sapiens cDNA |
| 5898 | 19086 | 32398 | 1.72 | 9.0E-38 | 10048482 | NT | Rattus norvegicus multidomain presynaptic cytomatrix protein Piccolo (LOC56768), mRNA |
| 1249 | 14408 | 27470 | 1.96 | 8.0E-38 | 11436955 | NT | Homo sapiens Grb2-associated binder 2 (KIAA0571), mRNA |
| 2567 | 15692 | 28817 | 1.21 | 8.0E-38 | BF346221.1 | EST_HUMAN | 602018401F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4153992 5' |
| 12735 | 14408 | 27470 | 1.37 | 8.0E-38 | 11436955 | NT | Homo sapiens Grb2-associated binder 2 (KIAA0571), mRNA |
| 13210 | 26049 | | 1.44 | 8.0E-38 | AB002059.1 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 2254 | 15387 | 28516 | 1.7 | 7.0E-38 | AW972825.1 | EST_HUMAN | EST384920 MAGE resequences, MAGL Homo sapiens cDNA |
| 3107 | 16283 | 29299 | 1.98 | 6.0E-38 | BF033033.1 | EST_HUMAN | 601455722F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3859348 5' |
| 5706 | 18899 | 32192 | 0.98 | 6.0E-38 | 11425114 | NT | Homo sapiens zinc finger protein ZNF287 (ZNF287), mRNA |
| 5706 | 18899 | 32193 | 0.98 | 6.0E-38 | 11425114 | NT | Homo sapiens zinc finger protein ZNF287 (ZNF287), mRNA |
| 7482 | 20557 | 34029 | 0.59 | 6.0E-38 | 8923130 | NT | Homo sapiens hypothetical protein FLJ20128 (FLJ20128), mRNA |
| 12189 | 25147 | | 4.27 | 6.0E-38 | 11435947 | NT | Homo sapiens chromosome 12 open reading frame 3 (C12ORF3), mRNA |
| 12704 | 25468 | 32025 | 6.66 | 6.0E-38 | AB002059.1 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 13160 | 25913 | 31861 | 1.79 | 6.0E-38 | 11418164 | NT | Homo sapiens adenylosuccinate lyase (ADSL), mRNA |
| 745 | 13926 | 26967 | 0.9 | 5.0E-38 | AW971819.1 | EST_HUMAN | EST383908 MAGE resequences, MAGL Homo sapiens cDNA |
| 2525 | 15650 | 28774 | 4.57 | 5.0E-38 | AJ237740.1 | NT | Homo sapiens RIBIIR gene (partial), exon 8 |
| 3796 | 16957 | 29961 | 0.94 | 5.0E-38 | 7549804 | NT | Homo sapiens deiodinase, iodothyronine, type II (DIO2), transcript variant 2, mRNA |
| 3971 | 16957 | 29961 | 0.77 | 5.0E-38 | 7549804 | NT | Homo sapiens deiodinase, iodothyronine, type II (DIO2), transcript variant 2, mRNA |
| 5288 | 15650 | 28774 | 0.98 | 5.0E-38 | AJ237740.1 | NT | Homo sapiens RIBIIR gene (partial), exon 8 |
| 7172 | 20305 | 33748 | 1.63 | 5.0E-38 | BE871610.1 | EST_HUMAN | 601450148F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3854074 5' |
| 121 | 13351 | 26380 | 4.28 | 4.0E-38 | Z25466.1 | NT | B.taurus mitochondrial aspartate aminotransferase mRNA, complete CDS |
| 121 | 13351 | 26381 | 4.28 | 4.0E-38 | Z25466.1 | NT | B.taurus mitochondrial aspartate aminotransferase mRNA, complete CDS |
| 1183 | 14346 | 27403 | 1.15 | 3.0E-38 | 11435947 | NT | Homo sapiens chromosome 12 open reading frame 3 (C12ORF3), mRNA |
| 2167 | 15302 | | 4.42 | 3.0E-38 | AF003530.1 | NT | Homo sapiens homeobox protein CDX4 (CDX4) gene, complete cds and flanking repeat regions |
| 3787 | 16948 | | 1.49 | 3.0E-38 | 7549807 | NT | Homo sapiens HIRA interacting protein 4 (dnaJ-like) (HIRIP4), mRNA |
| 3958 | 17116 | 30119 | 2.46 | 3.0E-38 | P53538 | SWISSPROT | SSU72 PROTEIN |
| 3958 | 17116 | 30120 | 2.46 | 3.0E-38 | P53538 | SWISSPROT | SSU72 PROTEIN |
| 4736 | 17871 | | 0.61 | 3.0E-38 | BE279301.1 | EST_HUMAN | 601157633F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3504272 5' |
| 6693 | 25836 | 33463 | 6.89 | 3.0E-38 | AL163300.2 | NT | Homo sapiens chromosome 21 segment HS21C100 |
| 7393 | 20471 | 33937 | 0.58 | 3.0E-38 | AW302461.1 | EST_HUMAN | xw04d01.x1 NCI_CGAP_Brn53 Homo sapiens cDNA clone IMAGE:2827009 3' |
| 7763 | 20822 | 34313 | 6.53 | 3.0E-38 | BF373664.1 | EST_HUMAN | CM3-FT0181-140700-241-f07 FT0181 Homo sapiens cDNA |
| 8851 | 21930 | 36469 | 2.11 | 3.0E-38 | H85494.1 | EST_HUMAN | yv88b04.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:249775 5' |
| 8851 | 21930 | 36470 | 2.11 | 3.0E-38 | H85494.1 | EST_HUMAN | yv88b04.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:249775 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10177 | 23214 | | 1.84 | 3.0E-38 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 11598 | 24651 | | 1.88 | 3.0E-38 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 12990 | 14346 | 27403 | 1.23 | 3.0E-38 | 11435947 | NT | Homo sapiens chromosome 12 open reading frame 3 (C12ORF3), mRNA |
| 61 | 13290 | 26303 | 1.96 | 2.0E-38 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 1411 | 14565 | 27639 | 3.66 | 2.0E-38 | 5902097 | NT | Homo sapiens SMT3 (suppressor of mif two 3, yeast) homolog 2 (SMT3H2), mRNA |
| 1678 | 14830 | 27914 | 13.95 | 2.0E-38 | AA437353.1 | EST_HUMAN | zw30d01.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:770785 5' similar to SW:MA12_RABIT P45701 MANNOSYL-OLIGOSACCHARIDE ALPHA-1,2-MANNOSIDASE ; |
| 1678 | 14830 | 27915 | 13.95 | 2.0E-38 | AA437353.1 | EST_HUMAN | zw30d01.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:770785 5' similar to SW:MA12_RABIT P45701 MANNOSYL-OLIGOSACCHARIDE ALPHA-1,2-MANNOSIDASE ; |
| 3622 | 16786 | | 0.92 | 2.0E-38 | AF070670.1 | NT | Homo sapiens protein phosphatase 2C alpha 2 mRNA, complete cds |
| 4704 | 17839 | 30824 | 18.99 | 2.0E-38 | 4557887 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 5252 | 18339 | 31312 | 0.68 | 2.0E-38 | AA437181.1 | EST_HUMAN | zv61d09.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:758129 5' similar to TR:G817957 G817957 GLYCINE RECEPTOR SUBUNIT ALPHA 4 ; |
| 5836 | 19026 | 32331 | 0.75 | 2.0E-38 | Z26634.2 | NT | Homo sapiens mRNA for ankyrin B (440 kDa) |
| 5836 | 19026 | 32332 | 0.75 | 2.0E-38 | Z26634.2 | NT | Homo sapiens mRNA for ankyrin B (440 kDa) |
| 7897 | 20949 | 34457 | 1.47 | 2.0E-38 | AV721103.1 | EST_HUMAN | AV721103 HTB Homo sapiens cDNA clone HTBARH11 5' |
| 8680 | 21760 | | 4.47 | 2.0E-38 | BE165980.1 | EST_HUMAN | MR3-HT0487-150200-113-g01 HT0487 Homo sapiens cDNA |
| 9096 | 22176 | 35719 | 0.49 | 2.0E-38 | F06450.1 | EST_HUMAN | HSC18F031 normalized infant brain cDNA Homo sapiens cDNA clone c-18f03 |
| 9165 | 22243 | 35786 | 1.26 | 2.0E-38 | AF069755.1 | NT | Homo sapiens orphan G protein-coupled receptor HG20 (HG20) mRNA, complete cds |
| 9422 | 22496 | | 1.36 | 2.0E-38 | BE222256.1 | EST_HUMAN | hu09g02.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3166130 3' similar to TR:O02710 O02710 GAG POLYPROTEIN. ; |
| 10665 | 23699 | 37309 | 1.67 | 2.0E-38 | D63479.2 | NT | Homo sapiens mRNA for KIAA0145 protein, partial cds |
| 11781 | 24771 | 38467 | 4.86 | 2.0E-38 | BE712790.1 | EST_HUMAN | QV2-HT0698-080800-293-a05 HT0698 Homo sapiens cDNA |
| 11939 | 24925 | 38626 | 2.86 | 2.0E-38 | AF190501.1 | NT | Homo sapiens leucine-rich repeat-containing G protein-coupled receptor 6 (LGR6) mRNA, partial cds |
| 11939 | 24925 | 38627 | 2.86 | 2.0E-38 | AF190501.1 | NT | Homo sapiens leucine-rich repeat-containing G protein-coupled receptor 6 (LGR6) mRNA, partial cds |
| 12244 | 25186 | | 6.21 | 2.0E-38 | AV726988.1 | EST_HUMAN | AV726988 HTC Homo sapiens cDNA clone HTCAXH07 5' |
| 12246 | 25187 | | 1.26 | 2.0E-38 | AB012723.1 | NT | Homo sapiens gene for kinesin-like protein, complete cds |
| 12546 | 25370 | | 3.36 | 2.0E-38 | M55630.1 | NT | Human topoisomerase I pseudogene 2 |
| 12559 | 25381 | 32073 | 4.81 | 2.0E-38 | H55641.1 | EST_HUMAN | CHR220580 Chromosome 22 exon Homo sapiens cDNA clone C22_788 5' |
| 12632 | 25425 | | 2.87 | 2.0E-38 | S74906,1 | NT | E1 beta=pyruvate dehydrogenase beta (promoter) [human, placenta, Genomic, 1280 nt] |
| 13174 | 25762 | | 1.35 | 2.0E-38 | 11418248 | NT | Homo sapiens sulfotransferase-related protein (SULTX3), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1117 | 14282 | | 1.96 | 1.0E-38 | AA401570.1 | EST_HUMAN | zu62b02.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:742539 5' similar to contains element MER19 repetitive element ; |
| 2055 | 15196 | 28310 | 2.62 | 1.0E-38 | 4885288 | NT | Homo sapiens guanine nucleotide binding protein-like 1 (GNL1), mRNA |
| 2077 | 15217 | 28336 | 1.33 | 1.0E-38 | 7661969 | NT | Homo sapiens KIAA0173 gene product (KIAA0173), mRNA |
| 2564 | 15689 | 28815 | 1.69 | 1.0E-38 | AF270831.1 | NT | Homo sapiens cyclin K (CCNK) gene, exon 7 |
| 4271 | 17416 | 30405 | 0.93 | 1.0E-38 | AB037863.1 | NT | Homo sapiens mRNA for KIAA1442 protein, partial cds |
| 4439 | 17579 | 30558 | 0.6 | 1.0E-38 | 4505016 | NT | Homo sapiens low density lipoprotein receptor-related protein 6 (LRP6) mRNA, and translated products |
| 4444 | 17584 | 30563 | 2.15 | 1.0E-38 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 4444 | 17584 | 30564 | 2.15 | 1.0E-38 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 4719 | 17854 | 30837 | 1.08 | 1.0E-38 | 8922543 | NT | Homo sapiens hypothetical protein FLJ10600 (FLJ10600), mRNA |
| 5268 | 18387 | 31355 | 1.89 | 1.0E-38 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 6151 | 19327 | 32672 | 4.59 | 1.0E-38 | 7305360 | NT | Mus musculus otogelin (Otog), mRNA |
| 6151 | 19327 | 32673 | 4.59 | 1.0E-38 | 7305360 | NT | Mus musculus otogelin (Otog), mRNA |
| 7563 | 20635 | 34110 | 2.55 | 1.0E-38 | AB014512.1 | NT | Homo sapiens mRNA for KIAA0612 protein, partial cds |
| 9354 | 22429 | 35987 | 0.58 | 1.0E-38 | 11422250 | NT | Homo sapiens hypothetical protein FLJ10600 (FLJ10600), mRNA |
| 9610 | 22665 | 36236 | 6.31 | 1.0E-38 | BE350127.1 | EST_HUMAN | ht09g01.x1 NCI_CGAP_Kid13 Homo sapiens cDNA clone IMAGE:3146256 3' similar to contains MER29.b3 MER29 repetitive element ; |
| 12403 | 25877 | | 4.79 | 1.0E-38 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 12116 | 25096 | 38801 | 1.64 | 9.0E-39 | AA112438.1 | EST_HUMAN | zm27f07.r1 Stratagene pancreas (#937208) Homo sapiens cDNA clone IMAGE:526885 5' |
| 65 | 13294 | 26309 | 4.93 | 8.0E-39 | 4502312 | NT | Homo sapiens ATPase, H+ transporting, lysosomal (vacuolar proton pump) 16kD (ATP6C) mRNA |
| 1425 | 14579 | 27652 | 1.3 | 8.0E-39 | 4758229 | NT | Homo sapiens estrogen receptor-binding fragment-associated gene 9 (EBAG9) mRNA |
| 1876 | 15020 | | 1.8 | 8.0E-39 | AI823404.1 | EST_HUMAN | wh53f10.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2384491 3' similar to TR:P87890 P87890 POL PROTEIN ; |
| 2160 | 15296 | 28421 | 7.08 | 7.0E-39 | AL163227.2 | NT | Homo sapiens chromosome 21 segment HS21C027 |
| 11047 | 24124 | 37758 | 2.4 | 6.0E-39 | BF331829.1 | EST_HUMAN | QV1-BT0631-040900-357-f02 BT0631 Homo sapiens cDNA |
| 13064 | 25697 | | 2.24 | 6.0E-39 | BE670394.1 | EST_HUMAN | 7e34c03.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284356 3' similar to WP:R151.6 CE00828 ; |
| 1032 | 14201 | 27259 | 1.64 | 5.0E-39 | AF003528.1 | NT | Homo sapiens X-linked anhidroitic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 3050 | 16226 | 29247 | 9.33 | 5.0E-39 | AI750154.1 | EST_HUMAN | at36b04.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2374063 3' similar to TR:Q15408 Q15408 NEUTRAL PROTEASE LARGE SUBUNIT ;contains LTR7.t1 LTR7 repetitive element ; |
| 12720 | 25479 | | 1.53 | 5.0E-39 | 11420289 | NT | Homo sapiens hypothetical protein FLJ10803 (FLJ10803), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 564 | 13756 | 26782 | 4.39 | 4.0E-39 | AB015610.1 | NT | Chlorocebus aethiops mRNA for ribosomal protein S4X, complete cds |
| 3663 | 16826 | 29835 | 0.9 | 4.0E-39 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 5950 | 19136 | 32450 | 0.6 | 4.0E-39 | 11422113 | NT | Homo sapiens EBNA-2 co-activator (100kD) (p100), mRNA |
| 5950 | 19136 | 32451 | 0.6 | 4.0E-39 | 11422113 | NT | Homo sapiens EBNA-2 co-activator (100kD) (p100), mRNA |
| 8267 | 21349 | 34864 | 1.02 | 4.0E-39 | AA682949.1 | EST_HUMAN | ae92g04.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:1020438 3' similar to contains OFR.b1 OFR repetitive element ; |
| 9530 | 22595 | 36165 | 0.46 | 4.0E-39 | D84116.1 | NT | Homo sapiens DNA for prostacyclin synthase, exon 2 |
| 9530 | 22595 | 36166 | 0.46 | 4.0E-39 | D84116.1 | NT | Homo sapiens DNA for prostacyclin synthase, exon 2 |
| 12744 | 25494 |  | 6.36 | 4.0E-39 | 11418177 | NT | Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA |
| 12884 | 25586 |  | 2.56 | 4.0E-39 | BE836452.1 | EST_HUMAN | QV0-FN0063-260600-278-c06 FN0063 Homo sapiens cDNA |
| 48 | 13287 | 26297 | 11.96 | 3.0E-39 | AA631949.1 | EST_HUMAN | fmfc16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 48 | 13287 | 26298 | 11.96 | 3.0E-39 | AA631949.1 | EST_HUMAN | fmfc16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 48 | 13287 | 26299 | 11.96 | 3.0E-39 | AA631949.1 | EST_HUMAN | fmfc16 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR12-1 |
| 12236 | 25180 | 38348 | 6.59 | 3.0E-39 | AI084557.1 | EST_HUMAN | ox63a10.s1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1660986 3' similar to SW:GTR5_RAT P43427 GLUCOSE TRANSPORTER TYPE 5, SMALL INTESTINE ; |
| 12236 | 25180 | 38349 | 6.59 | 3.0E-39 | AI084557.1 | EST_HUMAN | ox63a10.s1 Soares_NhHMPu_S1 Homo sapiens cDNA clone.IMAGE:1660986 3' similar to SW:GTR5_RAT P43427 GLUCOSE TRANSPORTER TYPE 5, SMALL INTESTINE ; |
| 12284 | 25212 |  | 5.72 | 3.0E-39 | H37903.1 | EST_HUMAN | yp51c06.s1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:190954 3' |
| 920 | 14095 |  | 7.78 | 2.0E-39 | BE409203.1 | EST_HUMAN | 601301607F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3636289 5' |
| 935 | 14110 |  | 11.65 | 2.0E-39 | AI525119.1 | EST_HUMAN | promrna-7.D01.r bvtumor Homo sapiens cDNA 5' |
| 1057 | 14223 |  | 3.9 | 2.0E-39 | AF000573.1 | NT | Homo sapiens homogentisate 1,2-dioxygenase gene, complete cds |
| 1560 | 14713 |  | 33.59 | 2.0E-39 | AW372318.1 | EST_HUMAN | PM0-BT0340-211299-003-d02 BT0340 Homo sapiens cDNA |
| 2030 | 15171 | 28279 | 4.48 | 2.0E-39 | AA720574.1 | EST_HUMAN | nw21g02.s1 NCI_CGAP_GCB0 Homo sapiens cDNA clone IMAGE:1241138 3' similar to contains THR.t3 THR repetitive element ; |
| 2692 | 15812 | 28928 | 1.89 | 2.0E-39 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 4523 | 17662 | 30649 | 1.74 | 2.0E-39 | BF370207.1 | EST_HUMAN | RC4-FN0037-290700-011-a10 FN0037 Homo sapiens cDNA |
| 5608 | 18803 | 31868 | 4.45 | 2.0E-39 | AA508880.1 | EST_HUMAN | ng86f03.s1 NCI_CGAP_Pr6 Homo sapiens cDNA clone IMAGE:941693 |
| 7526 | 20599 | 34073 | 2.08 | 2.0E-39 | AA080867.1 | EST_HUMAN | zn06f02.r1 Stratagene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:546651 5' |
| 7702 | 20767 | 34251 | 0.68 | 2.0E-39 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 7702 | 20767 | 34252 | 0.68 | 2.0E-39 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 8505 | 21586 | 36120 | 0.63 | 2.0E-39 | AF078779.1 | NT | Rattus norvegicus putative four repeat ion channel mRNA, complete cds |
| 9826 | 22866 |  | 0.79 | 2.0E-39 | AI686660.1 | EST_HUMAN | tu35e03.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2253052 3' |
| 11716 | 24756 | 38452 | 2.13 | 2.0E-39 | D86964.1 | NT | Human mRNA for KIAA0209 gene, partial cds |
| 1543 | 14695 | 27774 | 2.83 | 1.0E-39 | AJ006345.1 | NT | Homo sapiens KVLQT1 gene |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1543 | 14695 | 27775 | 2.83 | 1.0E-39 | AJ006345.1 | NT | Homo sapiens KVLQT1 gene |
| 1561 | 14714 | 27791 | 5.96 | 1.0E-39 | 7657020 | NT | Homo sapiens DKFZp434P211 protein (DKFZP434P211), mRNA |
| 1763 | 14912 | 28007 | 1.14 | 1.0E-39 | H55224.1 | EST_HUMAN | CHR220163 Chromosome 22 exon Homo sapiens cDNA clone C22_205 5' |
| 4782 | 17917 | 30903 | 9.32 | 1.0E-39 | AW951995.1 | EST_HUMAN | EST364065 MAGE resequences, MAGB Homo sapiens cDNA |
| 4782 | 17917 | 30904 | 9.32 | 1.0E-39 | AW951995.1 | EST_HUMAN | EST364065 MAGE resequences, MAGB Homo sapiens cDNA |
| 4824 | 17957 | 30943 | 9.13 | 1.0E-39 | 7657020 | NT | Homo sapiens DKFZp434P211 protein (DKFZP434P211), mRNA |
| 5474 | 18673 | 31686 | 0.82 | 1.0E-39 | 11417342 | NT | Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A (SEMA5A), mRNA |
| 5474 | 18673 | 31687 | 0.82 | 1.0E-39 | 11417342 | NT | Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A (SEMA5A), mRNA |
| 5747 | 18939 | 32239 | 1.2 | 1.0E-39 | T80876.1 | EST_HUMAN | yd26g06.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:109402 5' similar to contains Alu repetitive element;contains LTR1 repetitive element ; |
| 5781 | 18973 | 32278 | 4.65 | 1.0E-39 | AJ278170.1 | NT | Mus musculus mRNA for neuronal interacting factor X 1 (NIX1) (Nix1 gene) |
| 5781 | 18973 | 32279 | 4.65 | 1.0E-39 | AJ278170.1 | NT | Mus musculus mRNA for neuronal interacting factor X 1 (NIX1) (Nix1 gene) |
| 6965 | 20193 | | 1.95 | 1.0E-39 | 11436736 | NT | Homo sapiens tubby like protein 3 (TULP3), mRNA |
| 7521 | 20694 | 34069 | 2.15 | 1.0E-39 | D78132.1 | NT | Homo sapiens mRNA for ras-related GTP-binding protein, complete cds |
| 8762 | 21841 | 35382 | 1.04 | 1.0E-39 | O46530 | SWISSPROT | RIBONUCLEASE K6 PRECURSOR (RNASE K6) |
| 11165 | 24236 | 37867 | 1.4 | 1.0E-39 | 4759051 | NT | Homo sapiens ribosomal protein S6 kinase, 90kD, polypeptide 5 (RPS6KA5) mRNA |
| 669 | 13761 | 26785 | 2 | 9.0E-40 | 5803210 | NT | Homo sapiens UDP-glucose pyrophosphorylase 2 (UGP2), mRNA |
| 1263 | 14420 | 27484 | 16.02 | 9.0E-40 | 4755145 | NT | Homo sapiens AE-binding protein 1 (AEBP1) mRNA |
| 1263 | 14420 | 27485 | 16.02 | 9.0E-40 | 4755145 | NT | Homo sapiens AE-binding protein 1 (AEBP1) mRNA |
| 1480 | 14633 | 27718 | 15.75 | 9.0E-40 | 4507512 | NT | Homo sapiens tissue inhibitor of metalloproteinase 3 (Sorsby fundus dystrophy, pseudoinflammatory) (TIMP3) mRNA |
| 3885 | 17044 | 30043 | 1.18 | 9.0E-40 | 4503764 | NT | Homo sapiens fragile X mental retardation 1 (FMR1) mRNA |
| 4081 | 18467 | 30242 | 3.99 | 9.0E-40 | AB033070.1 | NT | Homo sapiens mRNA for KIAA1244 protein, partial cds |
| 4466 | 17606 | 30584 | 5.63 | 9.0E-40 | 4507848 | NT | Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA |
| 3106 | 16282 | 29298 | 1.04 | 8.0E-40 | AA078165.1 | EST_HUMAN | 7H15A04 Chromosome 7 HeLa cDNA Library Homo sapiens cDNA clone 7H15A04 |
| 4033 | 17189 | | 3.43 | 8.0E-40 | BE396541.1 | EST_HUMAN | 601288958F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3619166 5' |
| 7894 | 20946 | 34452 | 2.21 | 7.0E-40 | U60325.1 | NT | Human DNA polymerase gamma mRNA, nuclear gene encoding mitochondrial protein, complete cds |
| 7894 | 20946 | 34453 | 2.21 | 7.0E-40 | U60325.1 | NT | Human DNA polymerase gamma mRNA, nuclear gene encoding mitochondrial protein, complete cds |
| 11136 | 24208 | 37834 | 2.63 | 7.0E-40 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2788 | 15904 | 29011 | 9.91 | 6.0E-40 | AA361275.1 | EST_HUMAN | EST70527 T-cell lymphoma Homo sapiens cDNA 5' end similar to similar to zinc finger protein family |
| 2788 | 15904 | 29012 | 9.91 | 6.0E-40 | AA361275.1 | EST_HUMAN | EST70527 T-cell lymphoma Homo sapiens cDNA 5' end similar to similar to zinc finger protein family |
| 6060 | 19242 |  | 1.85 | 6.0E-40 | BE504766.1 | EST_HUMAN | hz40g01.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:3210480 3' |
| 6275 | 19449 |  | 1.38 | 6.0E-40 | 7661999 | NT | Homo sapiens KIAA0211 gene product (KIAA0211), mRNA |
| 7075 | 20128 | 33544 | 3.04 | 6.0E-40 | 11439783 | NT | Homo sapiens fatty acid desaturase 1 (FADS1), mRNA |
| 7075 | 20128 | 33545 | 3.04 | 6.0E-40 | 11439783 | NT | Homo sapiens fatty acid desaturase 1 (FADS1), mRNA |
| 10182 | 23219 | 36811 | 6.09 | 6.0E-40 | AV653028.1 | EST_HUMAN | AV653028 GLC Homo sapiens cDNA clone GLCDGF04 3' |
| 10182 | 23219 | 36812 | 6.09 | 6.0E-40 | AV653028.1 | EST_HUMAN | AV653028 GLC Homo sapiens cDNA clone GLCDGF04 3' |
| 2670 | 15791 | 28907 | 2.75 | 5.0E-40 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 1925 | 15068 | 28173 | 3.81 | 4.0E-40 | AI686005.1 | EST_HUMAN | tt91b01.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2248873 3' similar to TR:O73505 O73505 POL PROTEIN. ; |
| 2175 | 15310 |  | 6.81 | 4.0E-40 | AF003528.1 | NT | Homo sapiens X-linked anhidroitic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 4508 | 17647 | 30635 | 7.2 | 4.0E-40 | 7662117 | NT | Homo sapiens KIAA0433 protein (KIAA0433), mRNA |
| 8070 | 21152 | 34672 | 0.64 | 4.0E-40 | AU127831.1 | EST_HUMAN | AU127831 NT2RP2 Homo sapiens cDNA clone NT2RP2002172 5' |
| 8181 | 21263 | 34785 | 6.98 | 4.0E-40 | AA742809.1 | EST_HUMAN | nv34e10.r1 NCI_CGAP_Br4 Homo sapiens cDNA clone IMAGE:1222122 |
| 9255 | 22332 | 35881 | 5.84 | 4.0E-40 | BE009416.1 | EST_HUMAN | PM0-BN0167-070500-002-h12 BN0167 Homo sapiens cDNA . |
| 9255 | 22332 | 35882 | 5.84 | 4.0E-40 | BE009416.1 | EST_HUMAN | PM0-BN0167-070500-002-h12 BN0167 Homo sapiens cDNA |
| 10955 | 24036 | 37671 | 1.95 | 4.0E-40 | AW841585.1 | EST_HUMAN | RC1-CN0017-120200-012-e04 CN0017 Homo sapiens cDNA |
| 4250 | 17396 | 30385 | 0.9 | 3.0E-40 | AI925949.1 | EST_HUMAN | wh12f07.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2380549 3' |
| 4993 | 18122 |  | 0.83 | 3.0E-40 | AA055118.1 | EST_HUMAN | zf16h09.s1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:377153 3' |
| 6592 | 19752 | 33137 | 0.66 | 3.0E-40 | 4506736 | NT | Homo sapiens ribosomal protein S6 kinase, 70kD, polypeptide 1 (RPS6KB1) mRNA |
| 6777 | 19932 | 33328 | 7.06 | 3.0E-40 | 11417342 | NT | Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 6A (SEMA6A), mRNA |
| 8575 | 21656 | 35197 | 3.86 | 3.0E-40 | 6454167 | NT | Homo sapiens HBV associated factor (XAP4) mRNA |
| 9169 | 22247 | 35790 | 1.27 | 3.0E-40 | AF078779.1 | NT | Rattus norvegicus putative four repeat ion channel mRNA, complete cds |
| 9412 | 22486 | 36050 | 1.6 | 3.0E-40 | AF078779.1 | NT | Rattus norvegicus putative four repeat ion channel mRNA, complete cds |
| 10899 | 23983 | 37615 | 1.49 | 3.0E-40 | D86964.1 | NT | Human mRNA for KIAA0209 gene, partial cds |
| 11544 | 24600 | 38276 | 9.12 | 3.0E-40 | 6005813 | NT | Homo sapiens serine threonine protein kinase (NDR), mRNA |
| 335 | 13548 |  | 3.91 | 2.0E-40 | AI223036.1 | EST_HUMAN | qg52h08.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1838847 3' |
| 817 | 13996 |  | 5.58 | 2.0E-40 | AW303868.1 | EST_HUMAN | xr24e10.x1 NCI_CGAP_Ut4 Homo sapiens cDNA clone IMAGE:2761098 3' similar to SW:RS5_MOUSE P97461 40S RIBOSOMAL PROTEIN S5. ; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1872 | 15016 | | 2.33 | 2.0E-40 | AV731601.1 | EST_HUMAN | AV731601 HTF Homo sapiens cDNA clone HTFAZE05 5' |
| 1988 | 15130 | 28233 | 2.8 | 2.0E-40 | 4506188 | NT | Homo sapiens proteasome (prosome, macropain) subunit, alpha type, 7 (PSMA7) mRNA, and translated products |
| 1988 | 15130 | 28234 | 2.8 | 2.0E-40 | 4506188 | NT | Homo sapiens proteasome (prosome, macropain) subunit, alpha type, 7 (PSMA7) mRNA, and translated products |
| 2133 | 15269 | 28389 | 1.39 | 2.0E-40 | AI968562.1 | EST_HUMAN | wt90a11.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2514716 3' similar to TR:Q91929 Q91929 ZINC FINGER PROTEIN. ; |
| 2238 | 15371 | 28500 | 2.21 | 2.0E-40 | 5453592 | NT | Homo sapiens adenylyl cyclase-associated protein 2 (CAP2) mRNA |
| 2754 | 15871 | | 1.66 | 2.0E-40 | BE275932.1 | EST_HUMAN | 601121567F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3345784 5' |
| 3196 | 16371 | 29378 | 5.27 | 2.0E-40 | 5453592 | NT | Homo sapiens adenylyl cyclase-associated protein 2 (CAP2) mRNA |
| 5021 | 18150 | 31128 | 1.43 | 2.0E-40 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 5021 | 18150 | 31129 | 1.43 | 2.0E-40 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 906 | 14081 | | 1.2 | 1.0E-40 | AA225989.1 | EST_HUMAN | nc09a09.s1 NCI_CGAP_Pr1 Homo sapiens cDNA clone IMAGE:1007608 |
| 2686 | 15806 | 28922 | 1.82 | 1.0E-40 | BF036881.1 | EST_HUMAN | 601460375F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3863803 5' |
| 2750 | 15867 | | 3.88 | 1.0E-40 | BE018348.1 | EST_HUMAN | bb79a10.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3048570 5' similar to TR:Q9Z158 Q9Z158 SYNTAXIN 17. ; |
| 3370 | 16542 | | 2.14 | 1.0E-40 | 4507142 | NT | Homo sapiens sorting nexin 3 (SNX3) mRNA |
| 4733 | 17868 | 30851 | 3.69 | 1.0E-40 | 4508012 | NT | Homo sapiens zinc finger protein 200 (ZNF200) mRNA, and translated products |
| 6385 | 19554 | 32912 | 0.68 | 1.0E-40 | W92708.1 | EST_HUMAN | zh79f11.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:418317 3' |
| 6385 | 19554 | 32913 | 0.68 | 1.0E-40 | W92708.1 | EST_HUMAN | zh79f11.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:418317 3' |
| 7236 | 20320 | 33763 | 1.83 | 1.0E-40 | AA573201.1 | EST_HUMAN | nj42f04.s1 NCI_CGAP_AA1 Homo sapiens cDNA clone IMAGE:995107 3' |
| 7236 | 20320 | 33764 | 1.83 | 1.0E-40 | AA573201.1 | EST_HUMAN | nj42f04.s1 NCI_CGAP_AA1 Homo sapiens cDNA clone IMAGE:995167 3' |
| 7381 | 20459 | 33922 | 0.82 | 1.0E-40 | P26808 | SWISSPROT | POL POLYPROTEIN [CONTAINS: PROTEASE ; REVERSE TRANSCRIPTASE ; RIBONUCLEASE H ] |
| 11157 | 24228 | 37858 | 6.41 | 1.0E-40 | AU149345.1 | EST_HUMAN | AU149345 NT2RM4 Homo sapiens cDNA clone NT2RM4002122 3' |
| 11993 | 24978 | 38683 | 1.49 | 1.0E-40 | AA614255.1 | EST_HUMAN | np09h03.s1 NCI_CGAP_Pr3 Homo sapiens cDNA clone IMAGE:1115861 similar to TR:G1136406 G1136406 KIAA0173 PROTEIN. ; |
| 11993 | 24978 | 38684 | 1.49 | 1.0E-40 | AA614255.1 | EST_HUMAN | np09h03.s1 NCI_CGAP_Pr3 Homo sapiens cDNA clone IMAGE:1115861 similar to TR:G1136406 G1136406 KIAA0173 PROTEIN. ; |
| 12079 | 25059 | | 1.86 | 1.0E-40 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 12687 | 26032 | | 6.94 | 1.0E-40 | BF334112.1 | EST_HUMAN | MR2-CT0222-211099-002-e10 CT0222 Homo sapiens cDNA |
| 3906 | 17065 | 30064 | 0.59 | 9.0E-41 | W01596.1 | EST_HUMAN | za36a02.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:294602 5' |
| 8106 | 21188 | 34708 | 1.6 | 8.0E-41 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 851 | 16024 | 27089 | 2.52 | 7.0E-41 | AI934364.1 | EST_HUMAN | wp04h04.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2463895 3' |
| 851 | 16024 | 27090 | 2.52 | 7.0E-41 | AI934364.1 | EST_HUMAN | wp04h04.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2463895 3' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6379 | 18581 | 31450 | 0.9 | 7.0E-41 | 11545770 | NT | Homo sapiens hypothetical protein FLJ13188 (FLJ13188), mRNA |
| 6132 | 19311 | 32651 | 2.71 | 7.0E-41 | 11419208 | NT | Homo sapiens a disintegrin and metalloproteinase domain 22 (ADAM22), mRNA |
| 6483 | 19650 | 33012 | 1.04 | 7.0E-41 | 11433010 | NT | Homo sapiens IQ motif containing GTPase activating protein 1 (IQGAP1), mRNA |
| 7133 | 18559 | 31473 | 0.96 | 7.0E-41 | U72335.1 | NT | Human platelet activating factor acetylhydrolase, brain isoform, 45 kDa subunit (LIS1) gene, exons 3 and 4 |
| 11718 | 24758 | 38453 | 2.06 | 7.0E-41 | 4758445 | NT | Homo sapiens guanine nucleotide binding protein 10 (GNG10) mRNA |
| 11931 | 24917 | 38620 | 1.41 | 7.0E-41 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, *and partial cds, alternatively* spliced |
| 13182 | 26028 | | 8.58 | 7.0E-41 | 11417972 | NT | Homo sapiens pescadillo (zebrafish) homolog 1, containing BRCT domain (PES1), mRNA |
| 291 | 13508 | 26543 | 1.13 | 6.0E-41 | AB037163.1 | NT | Homo sapiens DSCR5b mRNA, *complete cds* |
| 2179 | 15314 | 28443 | 3.09 | 6.0E-41 | 7657042 | NT | Homo sapiens Down syndrome candidate region 1 (DSCR1), mRNA |
| 8168 | 21240 | 34760 | 1.31 | 6.0E-41 | BF513783.1 | EST_HUMAN | UI-H-BW1-amp-b-03-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3070421 3' |
| 13156 | 25952 | | 1.25 | 6.0E-41 | AW873637.1 | EST_HUMAN | ho64f08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:3042183 3' similar to contains MER32.b3 MER32 repetitive element ; |
| 1845 | 14991 | 28092 | 1.37 | 5.0E-41 | T62628.1 | EST_HUMAN | yc03e10.s1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:79628 3' |
| 4223 | 17371 | | 1.17 | 5.0E-41 | 4885636 | NT | Homo sapiens target of myb1 (chicken) homolog (TOM1), mRNA |
| 6678 | 19837 | | 2.34 | 5.0E-41 | BE067042.1 | EST_HUMAN | PM4-BT0341-251199-002-F11 BT0341 Homo sapiens cDNA |
| 402 | 13599 | | 1.69 | 4.0E-41 | BE156318.1 | EST_HUMAN | QV0-HT0367-150200-114-g09 HT0367 Homo sapiens cDNA |
| 1122 | 14287 | 27342 | 2.37 | 4.0E-41 | AU119344.1 | EST_HUMAN | AU119344 HEMBA1 Homo sapiens cDNA clone HEMBA1005583 5' |
| 1442 | 14595 | 27670 | 14.6 | 4.0E-41 | AI027117.1 | EST_HUMAN | ow45c06.s1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1649794 3' similar to TR:O00597 O00597 CYTOCHROME C-LIKE POLYPEPTIDE. ;contains LTR5.b1 LTR5 repetitive element ; |
| 1442 | 14595 | 27671 | 14.6 | 4.0E-41 | AI027117.1 | EST_HUMAN | ow45e06.s1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1649794 3' similar to TR:O00597 O00597 CYTOCHROME C-LIKE POLYPEPTIDE. ;contains LTR5.b1 LTR5 repetitive element ; |
| 1454 | 14607 | 27687 | 3.34 | 4.0E-41 | AB008681.1 | NT | Homo sapiens gene for activin receptor type IIB, complete cds |
| 1665 | 14817 | 27900 | 7.72 | 4.0E-41 | AI500406.1 | EST_HUMAN | tm96c04.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2165958 3' similar to contains OFR.b1 OFR repetitive element ; |
| 2953 | 16130 | 29144 | 5.02 | 4.0E-41 | AJ229041.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3 |
| 2953 | 16130 | 29146 | 5.02 | 4.0E-41 | AJ229041.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3 |
| 4262 | 17407 | 30393 | 2.13 | 4.0E-41 | X92685.1 | NT | H.sapiens DNase I hypersensitive site (HSS-3) enhancer element |
| 6638 | 19797 | | 1.8 | 4.0E-41 | AV758295.1 | EST_HUMAN | AV758295 BM Homo sapiens cDNA clone BMFBHC06 5' |
| 9895 | 22935 | 36519 | 5.06 | 4.0E-41 | BF304683.1 | EST_HUMAN | 601888096F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4122119 5' |
| 11969 | 24964 | | 7.38 | 4.0E-41 | AV710480.1 | EST_HUMAN | AV710480 Cu Homo sapiens cDNA clone CuAACC07 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 12900 | 25917 | | 1.3 | 4.0E-41 | AV708431.1 | EST_HUMAN | AV708431 ADC Homo sapiens cDNA clone ADCARE02 5' |
| 13110 | 25725 | 31942 | 1.61 | 4.0E-41 | BE887118.1 | EST_HUMAN | 601508315F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3910059 5' |
| 970 | 14143 | 27203 | 1.8 | 3.0E-41 | AB030176.1 | NT | Homo sapiens PAD-H19 mRNA for peptidylarginine deiminase type II, complete cds |
| 4455 | 17595 | 30575 | 4.03 | 3.0E-41 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 5609 | 18804 | 31869 | 11.76 | 3.0E-41 | X87689.1 | NT | H.sapiens mRNA for putative p64 CLCP protein |
| 6511 | 19676 | 33046 | 1.23 | 3.0E-41 | AB037808.1 | NT | Homo sapiens mRNA for KIAA1387 protein, partial cds |
| 7967 | 21017 | 34529 | 0.71 | 3.0E-41 | R54765.1 | EST_HUMAN | yj75d08.r1 Soares breast 2NbHBst Homo sapiens cDNA clone IMAGE:154576 5' |
| 12119 | 25099 | 38804 | 1.36 | 3.0E-41 | AW994941.1 | EST_HUMAN | QV0-BN0040-170300-160-h08 BN0040 Homo sapiens cDNA |
| 12119 | 25099 | 38805 | 1.36 | 3.0E-41 | AW994941.1 | EST_HUMAN | QV0-BN0040-170300-160-h08 BN0040 Homo sapiens cDNA |
| 12196 | 25153 | | 1.98 | 3.0E-41 | AA609768.1 | EST_HUMAN | af17f10.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1031947 3' |
| 12783 | 25525 | | 1.43 | 3.0E-41 | BF125922.1 | EST_HUMAN | 601762940F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:4026081 5' |
| 1871 | 14744 | 27827 | 31.25 | 2.0E-41 | U43701.1 | NT | Human ribosomal protein L23a mRNA, complete cds |
| 2013 | 15153 | 28258 | 2.17 | 2.0E-41 | AA331940.1 | EST_HUMAN | EST35818 Embryo, 8 week I Homo sapiens cDNA 5' end |
| 2293 | 15425 | 28559 | 1.26 | 2.0E-41 | D86962.1 | NT | Human mRNA for KIAA0207 gene, complete cds |
| 2341 | 15472 | 28606 | 5.52 | 2.0E-41 | X89631.1 | NT | G.gorilla DNA for ZNF80 gene homolog |
| 2889 | 14744 | 27827 | 11.99 | 2.0E-41 | U43701.1 | NT | Human ribosomal protein L23a mRNA, complete cds |
| 3406 | 16576 | 29591 | 0.69 | 2.0E-41 | AA449549.1 | EST_HUMAN | zx08b04.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:785839 5' |
| 3941 | 17100 | 30097 | 0.69 | 2.0E-41 | 5032106 | NT | Homo sapiens son of sevenless (Drosophila) homolog 1 (SOS1) mRNA |
| 4744 | 17879 | 30862 | 1.23 | 2.0E-41 | AL163267.2 | NT | Homo sapiens chromosome 21 segment HS21C067 |
| 4744 | 17879 | 30863 | 1.23 | 2.0E-41 | AL163267.2 | NT | Homo sapiens chromosome 21 segment HS21C067 |
| 5656 | 18850 | 32132 | 0.6 | 2.0E-41 | AA584575.1 | EST_HUMAN | no12c07.s1 NCI_CGAP_Pho1 Homo sapiens cDNA clone IMAGE:1100460 3' similar to gb:X52851_rna1 PEPTIDYL-PROLYL CIS-TRANS ISOMERASE A (HUMAN); |
| 6763 | 19919 | 33314 | 0.98 | 2.0E-41 | 4504778 | NT | Homo sapiens integrin, beta 8 (ITGB8) mRNA |
| 7850 | 20905 | 34409 | 9.27 | 2.0E-41 | AF038404.1 | NT | Homo sapiens homolog of Nedd5 (hNedd5) mRNA, complete cds |
| 8259 | 21341 | 34858 | 1.36 | 2.0E-41 | M96944.1 | NT | Human B-cell specific transcription factor (BSAP) mRNA, complete cds |
| 8259 | 21341 | 34859 | 1.36 | 2.0E-41 | M96944.1 | NT | Human B-cell specific transcription factor (BSAP) mRNA, complete cds |
| 8288 | 21370 | 34891 | 1.42 | 2.0E-41 | AA328265.1 | EST_HUMAN | EST31723 Embryo, 12 week I Homo sapiens cDNA 5' end |
| 9175 | 22253 | 35798 | 1.65 | 2.0E-41 | P52742 | SWISSPROT | ZINC FINGER PROTEIN 135 |
| 9617 | 22672 | 36241 | 0.66 | 2.0E-41 | 11417118 | NT | Homo sapiens KIAA0433 protein (KIAA0433), mRNA |
| 9617 | 22672 | 36242 | 0.56 | 2.0E-41 | 11417118 | NT | Homo sapiens KIAA0433 protein (KIAA0433), mRNA |
| 11775 | 24767 | 38463 | 2.87 | 2.0E-41 | AA372637.1 | EST_HUMAN | EST84555 Colon adenocarcinoma IV Homo sapiens cDNA 5' end |
| 13148 | 25747 | | 1.2 | 2.0E-41 | 11420516 | NT | Homo sapiens nuclear factor of activated T-cells, cytoplasmic 2 (NFATC2), mRNA |
| 3276 | 16450 | 29470 | 1.05 | 1.0E-41 | BE869735.1 | EST_HUMAN | 601445647F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3849803 5' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database . Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3276 | 16450 | 29471 | 1.05 | 1.0E-41 | BE869735.1 | EST_HUMAN | 601445647F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3849803 5' |
| 4689 | 17824 | 30811 | 9.46 | 1.0E-41 | 6678468 | NT | Mus musculus tubulin alpha 6 (Tuba6), mRNA |
| 9618 | 22673 | 36243 | 1.57 | 1.0E-41 | AI217868.1 | EST_HUMAN | qf75c10.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1755858 3' |
| 12334 | 25241 |  | 1.67 | 1.0E-41 | 11526291 | NT | Homo sapiens hypothetical protein FLJ20454 (FLJ20454), mRNA |
| 8717 | 21797 |  | 1.19 | 9.0E-42 | BE179191.1 | EST_HUMAN | RC0-HT0613-210300-032-g01 HT0613 Homo sapiens cDNA |
| 9375 | 22450 | 36011 | 2.81 | 9.0E-42 | 11560151 | NT | Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA |
| 9375 | 22450 | 36012 | 2.81 | 9.0E-42 | 11560151 | NT | Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA |
| 475 | 13670 | 26702 | 5.34 | 8.0E-42 | AF003530.1 | NT | Homo sapiens homeobox protein CDX4 (CDX4) gene, complete cds and flanking repeat regions |
| 2176 | 15311 | 28439 | 8.63 | 8.0E-42 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 12375 | 26035 |  | 30.09 | 8.0E-42 | AA493896.1 | EST_HUMAN | nh07c02.s1 NCI_CGAP_Thy1 Homo sapiens cDNA clone IMAGE:943586 similar to TR:G434304 G434304 367BP EXPRESSED SEQUENCE TAG MRNA ; |
| 12396 | 25904 |  | 2.91 | 8.0E-42 | AW088062.1 | EST_HUMAN | xc97a04.x1 NCI_CGAP_Brn35 Homo sapiens cDNA clone IMAGE:2592174 3' similar to contains OFR.t2 OFR repetitive element ; |
| 955 | 14128 |  | 2.23 | 7.0E-42 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 8666 | 21746 |  | 0.5 | 7.0E-42 | R10963.1 | EST_HUMAN | yf38g04.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:129174 5' |
| 9445 | 22561 | 36124 | 1.32 | 7.0E-42 | AI204358.1 | EST_HUMAN | qf58g12.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1754278 3' |
| 1903 | 15046 | 28155 | 3.24 | 6.0E-42 | AF012872.1 | NT | Homo sapiens phosphatidylinositol 4-kinase 230 (pi4K230) mRNA, complete cds |
| 1903 | 15046 | 28156 | 3.24 | 6.0E-42 | AF012872.1 | NT | Homo sapiens phosphatidylinositol 4-kinase 230 (pi4K230) mRNA, complete cds |
| 2363 | 15494 |  | 3.6 | 6.0E-42 | AW238656.1 | EST_HUMAN | xp29f08.x1 NCI_CGAP_HN10 Homo sapiens cDNA clone IMAGE:2741799 3' similar to contains L1.t1 L1 repetitive element ; |
| 5584 | 18779 | 31824 | 1.65 | 6.0E-42 | AB028990.1 | NT | Homo sapiens mRNA for KIAA1067 protein, partial cds |
| 5834 | 18779 | 31824 | 1.5 | 6.0E-42 | AB028990.1 | NT | Homo sapiens mRNA for KIAA1067 protein, partial cds |
| 138 | 13364 |  | 6.34 | 5.0E-42 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 451 | 13647 | 26683 | 1.56 | 5.0E-42 | BE217913.1 | EST_HUMAN | hv31e11.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3175052 3' |
| 499 | 13694 |  | 3.05 | 5.0E-42 | 5730038 | NT | Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA |
| 500 | 13695 |  | 1.14 | 5.0E-42 | 5730038 | NT | Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA |
| 6825 | 19978 | 33385 | 0.94 | 5.0E-42 | 11433063 | NT | Homo sapiens ubiquitin protein ligase E3A (human papilloma virus E6-associated protein, Angelman syndrome) (UBE3A), mRNA |
| 6825 | 19978 | 33386 | 0.94 | 5.0E-42 | 11433063 | NT | Homo sapiens ubiquitin protein ligase E3A (human papilloma virus E6-associated protein, Angelman syndrome) (UBE3A), mRNA |
| 6941 | 20254 | 33691 | 2.57 | 5.0E-42 | 11417957 | NT | Homo sapiens myotubularin related protein 3 (MTMR3), mRNA |
| 7351 | 20430 | 33892 | 1.55 | 5.0E-42 | AF071569.1 | NT | Homo sapiens multifunctional calcium/calmodulin-dependent protein kinase II delta2 isoform mRNA, complete cds |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8978 | 22057 | 35599 | 2.88 | 5.0E-42 | AB037715.1 | NT | Homo sapiens mRNA for KIAA1294 protein, partial cds |
| 10832 | 23865 | 37487 | 0.55 | 5.0E-42 | 11431168 | NT | Homo sapiens 3-hydroxyanthranilate 3,4-dioxygenase (HAAO), mRNA |
| 10832 | 23866 | 37488 | 0.55 | 5.0E-42 | 11431168 | NT | Homo sapiens 3-hydroxyanthranilate 3,4-dioxygenase (HAAO), mRNA |
| 11246 | 24315 | 37955 | 1.77 | 5.0E-42 | 8923162 | NT | Homo sapiens hypothetical protein FLJ20163 (FLJ20163), mRNA |
| 772 | 13953 | 27002 | 5.6 | 4.0E-42 | AF055066.1 | NT | Homo sapiens MHC class 1 region |
| 772 | 13953 | 27003 | 5.6 | 4.0E-42 | AF055066.1 | NT | Homo sapiens MHC class 1 region |
| 1091 | 14256 | 27312 | 1.82 | 4.0E-42 | AF189011.1 | NT | Homo sapiens ribonuclease III (RN3) mRNA, complete cds |
| 4311 | 17454 | 30442 | 1.39 | 4.0E-42 | X59417.1 | NT | H.sapiens PROS-27 mRNA |
| 4343 | 17486 | 30469 | 1.1 | 4.0E-42 | AF246219.1 | NT | Homo sapiens SNARE protein kinase SNAK mRNA, complete cds |
| 4364 | 17507 | 30488 | 4.67 | 4.0E-42 | 4506496 | NT | Homo sapiens regulatory factor X, 4 (influences HLA class II expression) (RFX4) mRNA |
| 4706 | 17841 | 30825 | 17.64 | 4.0E-42 | 4508008 | NT | Homo sapiens zinc finger protein 177 (ZNF177) mRNA |
| 5285 | 18404 | 31372 | 0.93 | 4.0E-42 | 7661635 | NT | Homo sapiens DKFZP564O2082 protein (DKFZP564O2082), mRNA |
| 10701 | 23734 | 37339 | 0.57 | 4.0E-42 | AW371201.1 | EST_HUMAN | CM0-BT0282-171299-127-b03 BT0282 Homo sapiens cDNA |
| 10884 | 23968 | 37597 | 2.32 | 4.0E-42 | AW818630.1 | EST_HUMAN | RC1-ST0278-040400-018-h11 ST0278 Homo sapiens cDNA |
| 10884 | 23968 | 37598 | 2.32 | 4.0E-42 | AW818630.1 | EST_HUMAN | RC1-ST0278-040400-018-h11 ST0278 Homo sapiens cDNA |
| 11240 | 24309 | 37946 | 1.43 | 4.0E-42 | AI435225.1 | EST_HUMAN | ti11d02.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2130147 3' |
| 11698 | 24695 | 38387 | 1.69 | 4.0E-42 | BF035327.1 | EST_HUMAN | 601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 1512 | 14665 | 27750 | 3.79 | 2.0E-42 | BF376834.1 | EST_HUMAN | RC0-TN0079-110900-024-g07 TN0079 Homo sapiens cDNA |
| 2466 | 15593 | 28718 | 1.6 | 2.0E-42 | AV690218.1 | EST_HUMAN | AV690218 GKC Homo sapiens cDNA clone GKCCBB08 5' |
| 2483 | 15610 |  | 4.24 | 2.0E-42 | AW898344.1 | EST_HUMAN | RC3-NN0070-270400-011-h10 NN0070 Homo sapiens cDNA |
| 2496 | 15623 | 28742 | 3.6 | 2.0E-42 | AW250059.1 | EST_HUMAN | 2819293.3prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2819293 3' |
| 5875 | 19065 | 32372 | 11.82 | 2.0E-42 | AW955368.1 | EST_HUMAN | EST367438 MAGE resequences, MAGC Homo sapiens cDNA |
| 5875 | 19065 | 32373 | 11.82 | 2.0E-42 | AW955368.1 | EST_HUMAN | EST367438 MAGE resequences, MAGC Homo sapiens cDNA |
| 6892 | 20044 | 33452 | 0.9 | 2.0E-42 | AI052586.1 | EST_HUMAN | ow83d05.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1653417 3' |
| 10046 | 23084 | 36685 | 1.28 | 2.0E-42 | BE538919.1 | EST_HUMAN | 601061284F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3447620 5' |
| 10260 | 23295 | 36892 | 0.64 | 2.0E-42 | P81649 | SWISSPROT | RIBONUCLEASE K3 (RNASE K3) |
| 10260 | 23295 | 36893 | 0.64 | 2.0E-42 | P81649 | SWISSPROT | RIBONUCLEASE K3 (RNASE K3) |
| 12037 | 25019 | 38723 | 1.53 | 2.0E-42 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 762 | 13932 | 26977 | 1.75 | 1.0E-42 | X57147.1 | NT | Human endogenous retrovirus pHE.1 (ERV9) |
| 1067 | 14233 | 27292 | 2.2 | 1.0E-42 | AW295809.1 | EST_HUMAN | UI-H-BI1-afh-e-04-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2721871 3' |
| 1125 | 14290 | 27345 | 1.74 | 1.0E-42 | AJ251818.1 | NT | Homo sapiens partial C9 gene for complement component C9, exon 1 |
| 1125 | 14290 | 27346 | 1.74 | 1.0E-42 | AJ251818.1 | NT | Homo sapiens partial C9 gene for complement component C9, exon 1 |
| 1271 | 16033 | 27498 | 11.99 | 1.0E-42 | AF067166.1 | NT | Homo sapiens NADH-ubiquinone oxidoreductase AGGG subunit precursor homolog mRNA, nuclear gene encoding mitochondrial protein, complete cds |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1271 | 16033 | 27499 | 11.99 | 1.0E-42 | AF067166.1 | NT | Homo sapiens NADH-ubiquinone oxidoreductase AGGG subunit precursor homolog mRNA, nuclear gene encoding mitochondrial protein, complete cds |
| 1735 | 14884 | 27977 | 1.15 | 1.0E-42 | 11423219 | NT | Homo sapiens rec (LOC51201), mRNA |
| 2087 | 15227 | 28349 | 1.18 | 1.0E-42 | AF110296.1 | NT | Homo sapiens PDNP1 gene, exon 17 |
| 2609 | 15733 | 28849 | 1.42 | 1.0E-42 | 5174458 | NT | Homo sapiens major histocompatibility complex, class II, DM alpha (HLA-DMA) mRNA |
| 3029 | 16205 | 29228 | 9.15 | 1.0E-42 | 4505524 | NT | Homo sapiens origin recognition complex, subunit 5 (yeast homolog)-like (ORC5L) mRNA, and translated products |
| 3799 | 16960 | 29964 | 3.31 | 1.0E-42 | 7662027 | NT | Homo sapiens KIAA0255 gene product (KIAA0255), mRNA |
| 3895 | 17054 | 30054 | 1.11 | 1.0E-42 | 5031610 | NT | Homo sapiens Golgi vesicular membrane trafficking protein p18 (BET1) mRNA |
| 4036 | 17192 | 30202 | 0.99 | 1.0E-42 | AL163267.2 | NT | Homo sapiens chromosome 21 segment HS21C067 |
| 4361 | 17504 | 30486 | 3.47 | 1.0E-42 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 4716 | 17851 | 30834 | 0.61 | 1.0E-42 | AW813617.1 | EST_HUMAN | RC3-ST0197-161099-012-a03 ST0197 Homo sapiens cDNA |
| 4867 | 18000 | 30984 | 2.37 | 1.0E-42 | 5803122 | NT | Homo sapiens proteasome inhibitor (PI31), mRNA |
| 4867 | 18000 | 30985 | 2.37 | 1.0E-42 | 5803122 | NT | Homo sapiens proteasome inhibitor (PI31), mRNA |
| 4901 | 18031 | 31020 | 6.13 | 1.0E-42 | 4506758 | NT | Homo sapiens ryanodine receptor 3 (RYR3) mRNA |
| 11440 | 24501 | 38169 | 1.39 | 1.0E-42 | BE408611.1 | EST_HUMAN | 601304125F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638310 5' |
| 10291 | 23326 | 36929 | 6.16 | 9.0E-43 | 4757969 | NT | Homo sapiens chromodomain protein, Y chromosome-like (CDYL) mRNA |
| 669 | 13855 | 26883 | 20.77 | 8.0E-43 | AV736824.1 | EST_HUMAN | AV736824 CB Homo sapiens cDNA clone CBLAKH08 5' |
| 669 | 13855 | 26884 | 20.77 | 8.0E-43 | AV736824.1 | EST_HUMAN | AV736824 CB Homo sapiens cDNA clone CBLAKH08 5' |
| 718 | 13900 | 26938 | 5.12 | 8.0E-43 | 8923276 | NT | Homo sapiens hypothetical protein FLJ20297 (FLJ20297), mRNA |
| 718 | 13900 | 26939 | 5.12 | 8.0E-43 | 8923276 | NT | Homo sapiens hypothetical protein FLJ20297 (FLJ20297), mRNA |
| 718 | 13900 | 26940 | 5.12 | 8.0E-43 | 8923276 | NT | Homo sapiens hypothetical protein FLJ20297 (FLJ20297), mRNA |
| 5816 | 19006 | 32312 | 0.72 | 8.0E-43 | H13952.1 | EST_HUMAN | yj08e11.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:148172 5' |
| 3731 | 16892 | 29896 | 7.48 | 7.0E-43 | AW246442.1 | EST_HUMAN | 2822251.5prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2822251 5' |
| 8968 | 22047 | | 3.98 | 7.0E-43 | AI936748.1 | EST_HUMAN | wp69b01.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2466985 3' similar to TR:O15475 O15475 UNNAMED HERV-H PROTEIN ;contains LTR7.b1 LTR7 repetitive element ; |
| 1374 | 14529 | | 11.62 | 6.0E-43 | AA491890.1 | EST_HUMAN | ne72d06.s1 NCI_CGAP_Ew1 Homo sapiens cDNA clone IMAGE:909803 similar to gb:L05095 60S RIBOSOMAL PROTEIN L30 (HUMAN); |
| 2657 | 15780 | | 4.03 | 6.0E-43 | AV708201.1 | EST_HUMAN | AV708201 ADC Homo sapiens cDNA clone ADCACC10 5' |
| 4963 | 18092 | 31068 | 252.27 | 6.0E-43 | AI421540.1 | EST_HUMAN | tf26c04.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2097318 3' similar to SW:BRR2_YEAST P32639 PRE-MRNA SPLICING HELICASE BRR2 ; |
| 6441 | 19608 | 32971 | 2.53 | 6.0E-43 | 9955973 | NT | Homo sapiens ATP-binding cassette, sub-family C (CFTR/MRP), member 3 (ABCC3), transcript variant MRP3B, mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7048 | 20101 | 33518 | 1.8 | 6.0E-43 | AW468897.1 | EST_HUMAN | hd30b04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2910991 3' similar to contains MER1.t3 MER1 MER1 repetitive element ; |
| 10056 | 23094 | 36696 | 1.77 | 6.0E-43 | AA195154.1 | EST_HUMAN | zr35e06.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:665410 5' similar to TR:G529641 G529641 DB1, COMPLETE CDS. ;contains element PTR7 repetitive element ; |
| 11363 | 24424 | | 2.45 | 6.0E-43 | AL119158.1 | EST_HUMAN | DKFZp761L1712_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761L1712 5' |
| 145 | 13370 | | 1.82 | 5.0E-43 | AL163213.2 | NT | Homo sapiens chromosome 21 segment HS21C013 |
| 515 | 13709 | 26736 | 3.4 | 5.0E-43 | AA382780.1 | EST_HUMAN | EST96033 Testis I Homo sapiens cDNA 5' end |
| 2908 | 16086 | 29100 | 1.59 | 5.0E-43 | AV732578.1 | EST_HUMAN | AV732578 HTF Homo sapiens cDNA clone HTFANC06 5' |
| 6435 | 20096 | 33512 | 0.9 | 5.0E-43 | AI613509.1 | EST_HUMAN | tw22e07.x1 NCI_CGAP_Brn52 Homo sapiens cDNA clone IMAGE:2260452 3' |
| 7043 | 20096 | 33512 | 0.69 | 5.0E-43 | AI613509.1 | EST_HUMAN | tw22e07.x1 NCI_CGAP_Brn52 Homo sapiens cDNA clone IMAGE:2260452 3' |
| 8381 | 21462 | 34985 | 0.64 | 5.0E-43 | AA442271.1 | EST_HUMAN | zv54a03.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:757420 5' |
| 8381 | 21462 | 34986 | 0.64 | 5.0E-43 | AA442271.1 | EST_HUMAN | zv54a03.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:757420 5' |
| 9080 | 22159 | | 0.73 | 5.0E-43 | H74277.1 | EST_HUMAN | yu49g12.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:229610 5' |
| 9564 | 22706 | 36272 | 4.09 | 5.0E-43 | AA465288.1 | EST_HUMAN | aa33d08.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:815055 5' |
| 10609 | 23643 | 37251 | 2.6 | 5.0E-43 | AI733244.1 | EST_HUMAN | oo52c10.x5 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1569810 3' similar to TR:P90591 P90591 PV14 GENE. ; |
| 10651 | 23685 | 37295 | 1.02 | 5.0E-43 | AL049110.1 | EST_HUMAN | DKFZp434D0119_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434D0119 |
| 11001 | 24080 | 37715 | 4.53 | 5.0E-43 | AW863007.1 | EST_HUMAN | MR2-SN0007-290400-004-c02 SN0007 Homo sapiens cDNA |
| 11213 | 24282 | 37921 | 2.24 | 5.0E-43 | W29011.1 | EST_HUMAN | 55a4 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |
| 995 | 15987 | 27227 | 4.4 | 4.0E-43 | AF003528.1 | NT | Homo sapiens X-linked anhidroitic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 5373 | 18576 | 31444 | 1.09 | 4.0E-43 | AI056338.1 | EST_HUMAN | oy47h03.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:1669013 3' |
| 6499 | 19665 | 33028 | 0.68 | 4.0E-43 | 6996009 | NT | Homo sapiens glycyl-tRNA synthetase (GARS), mRNA |
| 7280 | 20363 | | 1.6 | 4.0E-43 | 11416793 | NT | Homo sapiens protocadherin beta 6 (PCDHB6), mRNA |
| 8371 | 21452 | 34975 | 5.18 | 4.0E-43 | AI244341.1 | EST_HUMAN | qj76a02.x1 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1865354 3' similar to contains MER10.t3 MER10 repetitive element ; |
| 8371 | 21452 | 34976 | 5.18 | 4.0E-43 | AI244341.1 | EST_HUMAN | qj76a02.x1 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1865354 3' similar to contains MER10.t3 MER10 repetitive element ; |
| 10521 | 23556 | 37164 | 1.02 | 4.0E-43 | 6005967 | NT | Homo sapiens zinc finger protein 161 (ZNF161), mRNA |
| 12311 | 25227 | | 2.7 | 4.0E-43 | R20950.1 | EST_HUMAN | yg06b05.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:31363 5' similar to contains MER10 repetitive element ; |
| 13030 | 25898 | | 1.33 | 4.0E-43 | AI436093.1 | EST_HUMAN | th92b12.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2126111 3' similar to TR:O02710 O02710 GAG POLYPROTEIN. ; |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1240 | 14399 | | 3.46 | 3.0E-43 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 1730 | 14880 | 27971 | 2.52 | 3.0E-43 | X97869.1 | NT | H.sapiens gene encoding La autoantigen |
| 2120 | 16055 | 28377 | 1.1 | 3.0E-43 | R83422.1 | EST_HUMAN | yp82f01.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:193946 5' similar to contains MSR1 repetitive element ; |
| 3662 | 16825 | 29834 | 1.22 | 3.0E-43 | S69002.1 | NT | AML1-EVI-1=AML1-EVI-1 fusion protein {rearranged translocation} [human, leukemic cell line SKH1, mRNA Mutant, 5938 nt] |
| 4405 | 17548 | 30532 | 0.9 | 3.0E-43 | AA548154.1 | EST_HUMAN | nk55d06.s1 NCI_CGAP_Pr7 Homo sapiens cDNA clone IMAGE:1017419 |
| 6014 | 19198 | 32515 | 0.94 | 3.0E-43 | D34613.1 | NT | Human TBXAS1 gene for thromboxane synthase, promoter region and exon 1 |
| 6487 | 19654 | 33016 | 1.56 | 3.0E-43 | 7305360 | NT | Mus musculus otogelin (Otog), mRNA |
| 6487 | 19654 | 33017 | 1.56 | 3.0E-43 | 7305360 | NT | Mus musculus otogelin (Otog), mRNA |
| 6867 | 20019 | 33428 | 5.09 | 3.0E-43 | U65487.1 | NT | Human ribosomal RNA upstream binding transcription factor (UBTF) gene, partial cds |
| 8357 | 21438 | | 4.39 | 3.0E-43 | AA458824.1 | EST_HUMAN | aa88f11.s1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:838413 3' similar to contains THR.t2 THR repetitive element ; |
| 9020 | 22099 | 35639 | 1 | 3.0E-43 | 7661721 | NT | Homo sapiens hypothetical protein (HSA011916), mRNA |
| 10068 | 23106 | 36709 | 0.68 | 3.0E-43 | 11420217 | NT | Homo sapiens similar to ornithine carbamoyltransferase (H. sapiens) (LOC63648), mRNA |
| 12026 | 26010 | 38712 | 1.42 | 3.0E-43 | 5730038 | NT | Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA |
| 188 | 13410 | | 7.24 | 2.0E-43 | AI190764.1 | EST_HUMAN | qd61c09.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1733968 3' similar to contains PTR7.t3 PTR7 PTR7 repetitive element ; |
| 6604 | 19764 | 33152 | 1.2 | 2.0E-43 | BE222778.1 | EST_HUMAN | hu53a08.x1 NCI_CGAP_Brn41 Homo sapiens cDNA clone IMAGE:3173750 3' similar to contains element MER40 repetitive element ; |
| 6604 | 19764 | 33153 | 1.2 | 2.0E-43 | BE222778.1 | EST_HUMAN | hu53a08.x1 NCI_CGAP_Brn41 Homo sapiens cDNA clone IMAGE:3173750 3' similar to contains element MER40 repetitive element ; |
| 7426 | 20503 | 33973 | 1.29 | 2.0E-43 | AW207390.1 | EST_HUMAN | UI-H-BI1-afi-a-09-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2721712 3' |
| 8503 | 21584 | | 3.16 | 2.0E-43 | U43701.1 | NT | Human ribosomal protein L23a mRNA, complete cds |
| 11476 | 24535 | | 4.75 | 2.0E-43 | T03007.1 | EST_HUMAN | FB1G5 Fetal brain, Stratagene Homo sapiens cDNA clone FB1G5 3'end similar to LINE-1 |
| 1681 | 14833 | 27917 | 2.95 | 1.0E-43 | AF154836.1 | NT | Homo sapiens Ras-like GTP-binding protein (RAB27A) gene, exons 1b and 2 |
| 1681 | 14833 | 27918 | 2.95 | 1.0E-43 | AF154836.1 | NT | Homo sapiens Ras-like GTP-binding protein (RAB27A) gene, exons 1b and 2 |
| 1742 | 14891 | 27985 | 4.12 | 1.0E-43 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 2786 | 15902 | 29009 | 4.73 | 1.0E-43 | BF348283.1 | EST_HUMAN | 602022313F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4167666 5' |
| 5526 | 18723 | 31740 | 0.88 | 1.0E-43 | 4885544 | NT | Homo sapiens pyruvate dehydrogenase kinase, isoenzyme 3 (PDK3) mRNA |
| 6744 | 19900 | 33291 | 6.84 | 1.0E-43 | 4507168 | NT | Homo sapiens Sp4 transcription factor (SP4) mRNA |
| 6744 | 19900 | 33292 | 6.84 | 1.0E-43 | 4507168 | NT | Homo sapiens Sp4 transcription factor (SP4) mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7106 | 18533 | 31488 | 1.19 | 1.0E-43 | R19751.1 | EST_HUMAN | yg40e01.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:34732 5' similar to SP:BD38_MOUSE P28656 BRAIN PROTEIN DN38 ; |
| 8117 | 21199 | 34720 | 0.6 | 1.0E-43 | AF175265.1 | NT | Homo sapiens vacuolar sorting protein 35 (VPS35) mRNA, complete cds |
| 8256 | 21338 |  | 2.17 | 1.0E-43 | AF198490.1 | NT | Homo sapiens 8q22.1 region and MTG8 (CBFA2T1) gene, partial cds |
| 9037 | 22116 | 35659 | 28.54 | 1.0E-43 | AW963676.1 | EST_HUMAN | EST375749 MAGE resequences, MAGH Homo sapiens cDNA |
| 10498 | 23533 | 37143 | 0.66 | 1.0E-43 | AW953229.1 | EST_HUMAN | EST365299 MAGE resequences, MAGB Homo sapiens cDNA |
| 11206 | 24275 | 37912 | 5.81 | 1.0E-43 | AI984961.1 | EST_HUMAN | wr87h01.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2494705 3' |
| 11647 | 24726 | 38418 | 3.05 | 1.0E-43 | 11424378 | NT | Homo sapiens calcium channel, voltage-dependent, alpha 1E subunit (CACNA1E), mRNA |
| 12248 | 25189 |  | 2.29 | 1.0E-43 | AL137964.1 | EST_HUMAN | DKFZp761D1015_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761D1015 5' |
| 12550 | 25373 | 32071 | 3.16 | 1.0E-43 | AI675416.1 | EST_HUMAN | wb99b04.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2313775 3' |
| 12805 | 25538 | 32013 | 3.21 | 9.0E-44 | 11418322 | NT | Homo sapiens cadherin EGF LAG seven-pass G-type receptor 1 (CELSR1), mRNA |
| 913 | 14088 | 27153 | 5.32 | 8.0E-44 | AI222985.1 | EST_HUMAN | qh23g01.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1845552 3' |
| 913 | 14088 | 27154 | 5.32 | 8.0E-44 | AI222985.1 | EST_HUMAN | qh23g01.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1845552 3' |
| 8736 | 21815 | 35350 | 2.86 | 8.0E-44 | X94354.1 | NT | H.sapiens DNA for Cone cGMP-PDE gene |
| 10546 | 23580 | 37189 | 0.5 | 8.0E-44 | 11423497 | NT | Homo sapiens small proline-rich protein 2C (SPRR2C), mRNA |
| 10545 | 23580 | 37190 | 0.5 | 8.0E-44 | 11423497 | NT | Homo sapiens small proline-rich protein 2C (SPRR2C), mRNA |
| 11436 | 24497 | 38164 | 2.87 | 8.0E-44 | Y10498.2 | NT | Homo sapiens mRNA for thymidine kinase, partial |
| 11987 | 24972 | 38677 | 1.76 | 8.0E-44 | L29139.1 | NT | Homo sapiens myosin mRNA, partial cds |
| 12601 | 25345 | 32065 | 2.89 | 8.0E-44 | 11527389 | NT | Homo sapiens polymerase (RNA) II (DNA directed) polypeptide F (POLR2F), mRNA |
| 12544 | 25735 | 31946 | 2.17 | 8.0E-44 | 11418086 | NT | Homo sapiens putative nuclear protein (HRIHFB2122), mRNA |
| 12945 | 25938 | 31760 | 1.85 | 8.0E-44 | 11418099 | NT | Homo sapiens protein kinase C, alpha binding protein (PRKCABP), mRNA |
| 13126 | 25735 | 31946 | 2.29 | 8.0E-44 | 11418086 | NT | Homo sapiens putative nuclear protein (HRIHFB2122), mRNA |
| 676 | 13862 |  | 1.13 | 7.0E-44 | R06035.1 | EST_HUMAN | ye89e01.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:124920 5' |
| 2307 | 15439 | 28573 | 1.19 | 7.0E-44 | 5031886 | NT | Homo sapiens LIM domain-containing preferred translocation partner in lipoma (LPP) mRNA |
| 3031 | 16207 | 29229 | 4.44 | 7.0E-44 | AF048729.1 | NT | Homo sapiens minisatellite ms32 repeat region |
| 3031 | 16207 | 29230 | 4.44 | 7.0E-44 | AF048729.1 | NT | Homo sapiens minisatellite ms32 repeat region |
| 3985 | 17123 | 30126 | 2.71 | 7.0E-44 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 4366 | 17499 | 30479 | 0.85 | 7.0E-44 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 4356 | 17499 | 30480 | 0.85 | 7.0E-44 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 8379 | 21460 | 34983 | 2.39 | 7.0E-44 | AU159839.1 | EST_HUMAN | AU159839 Y79AA1 Homo sapiens cDNA clone Y79AA1000496 3' |
| 6229 | 19404 | 32754 | 0.67 | 6.0E-44 | Z20946.1 | EST_HUMAN | HSAAADEYU P, Human foetal Brain Whole tissue Homo sapiens cDNA |
| 314 | 13530 |  | 4.25 | 5.0E-44 | AJ289880.1 | NT | Homo sapiens KIAA0851 gene (partial), XT3 gene and LZTFL1 gene |
| 342 | 13553 |  | 2.42 | 5.0E-44 | AJ289880.1 | NT | Homo sapiens KIAA0851 gene (partial), XT3 gene and LZTFL1 gene |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8072 | 21154 | 34673 | 4.12 | 5.0E-44 | AI568523.1 | EST_HUMAN | tn40d02.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2170083 3' similar to contains OFR.t1 OFR OFR repetitive element ; |
| 9684 | 22726 |  | 1.39 | 5.0E-44 | AU124571.1 | EST_HUMAN | AU124571 NT2RM4 Homo sapiens cDNA clone NT2RM4000218 5' |
| 3501 | 16668 | 29678 | 4.27 | 4.0E-44 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 5128 | 18253 |  | 0.89 | 4.0E-44 | AI435225.1 | EST_HUMAN | ti11d02.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2130147 3' |
| 7639 | 20708 | 34187 | 0.67 | 4.0E-44 | BE883178.1 | EST_HUMAN | 601508601F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3910152 5' |
| 8466 | 21547 | 35077 | 0.86 | 4.0E-44 | L21948.1 | NT | Human fibrillin (FBN1) locus polymorphism |
| 9079 | 22158 |  | 0.71 | 4.0E-44 | BE176618.1 | EST_HUMAN | RC3-HT0585-010400-023-d08 HT0585 Homo sapiens cDNA |
| 11513 | 24570 | 38247 | 5.64 | 4.0E-44 | U90878.1 | NT | Homo sapiens carboxyl terminal LIM domain protein (CLIM1) mRNA, complete cds |
| 1827 | 14975 |  | 1.5 | 3.0E-44 | 6912477 | NT | Homo sapiens karyopherin alpha 6 (importin alpha 7) (KPNA6), mRNA |
| 3167 | 16342 | 29350 | 5.11 | 3.0E-44 | AA169851.1 | EST_HUMAN | zp18b05.r1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:609777 5' |
| 7970 | 21020 | 34533 | 0.65 | 3.0E-44 | BE884820.1 | EST_HUMAN | 601510547F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912010 5' |
| 9719 | 22784 | 36355 | 0.63 | 3.0E-44 | AF005273.1 | NT | Sus scrofa domestica submaxillary apomucin mRNA, complete cds |
| 1074 | 14240 | 27296 | 1.43 | 2.0E-44 | 4826685 | NT | Homo sapiens DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 1 (DDX1) mRNA |
| 1074 | 14240 | 27297 | 1.43 | 2.0E-44 | 4826685 | NT | Homo sapiens DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 1 (DDX1) mRNA |
| 1234 | 14393 | 27455 | 3.61 | 2.0E-44 | 5803200 | NT | Homo sapiens transmembrane trafficking protein (TMP21), mRNA |
| 1234 | 14393 | 27456 | 3.61 | 2.0E-44 | 5803200 | NT | Homo sapiens transmembrane trafficking protein (TMP21), mRNA |
| 1340 | 14496 | 27568 | 6.82 | 2.0E-44 | AF133588.1 | NT | Homo sapiens RAB36 (RAB36) mRNA, complete cds |
| 1400 | 14554 | 27628 | 1.6 | 2.0E-44 | BE465325.1 | EST_HUMAN | hw14g06.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3182938 3' similar to SW:OXYB_HUMAN P22059 OXYSTEROL-BINDING PROTEIN. ; |
| 2219 | 15353 | 28484 | 3.07 | 2.0E-44 | AF070651.1 | NT | Homo sapiens tissue-type bone marrow zinc finger protein 4 mRNA, complete cds |
| 2605 | 15728 |  | 1.26 | 2.0E-44 | 4507592 | NT | Homo sapiens tumor necrosis factor (ligand) superfamily, member 10 (TNFSF10) mRNA |
| 2642 | 15765 | 28879 | 0.94 | 2.0E-44 | D25303.1 | NT | Human mRNA for integrin alpha subunit, complete cds |
| 2676 | 15796 |  | 2.3 | 2.0E-44 | 5901933 | NT | Homo sapiens adaptor-related protein complex 4, sigma 1 subunit (CLAPS4), mRNA |
| 3559 | 16724 | 29740 | 1.34 | 2.0E-44 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 4692 | 17827 | 30813 | 1.75 | 2.0E-44 | AW864379.1 | EST_HUMAN | PM4-SN0016-120500-003-e04 SN0016 Homo sapiens cDNA |
| 6220 | 19395 | 32744 | 1.75 | 2.0E-44 | 11449901 | NT | Homo sapiens chemokine (C-C motif) receptor 9 (CCR9), mRNA |
| 6996 | 18515 | 31507 | 2.18 | 2.0E-44 | AF038968.1 | NT | Homo sapiens general transcription factor 2-I (GTF2I) mRNA, alternatively spliced product, complete cds |
| 7572 | 20644 | 34121 | 3.8 | 2.0E-44 | 11419226 | NT | Homo sapiens glutamate receptor, metabotropic 3 (GRM3), mRNA |
| 7572 | 20644 | 34122 | 3.8 | 2.0E-44 | 11419226 | NT | Homo sapiens glutamate receptor, metabotropic 3 (GRM3), mRNA |
| 8623 | 21703 | 35238 | 0.7 | 2.0E-44 | 7706370 | NT | Homo sapiens vesicle transport-related protein (KIAA0917), mRNA |
| 8623 | 21703 | 35239 | 0.7 | 2.0E-44 | 7706370 | NT | Homo sapiens vesicle transport-related protein (KIAA0917), mRNA |
| 8819 | 21898 | 35437 | 1.8 | 2.0E-44 | BE389058.1 | EST_HUMAN | 601286914F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3613586 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 12152 | 25122 | | 4.59 | 2.0E-44 | BE244902.1 | EST_HUMAN | TCBAP1E2795 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP2795 |
| 12730 | 26094 | | 1.56 | 2.0E-44 | 4826863 | NT | Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA |
| 53 | 13292 | 26306 | 5.24 | 1.0E-44 | 7657334 | NT | Homo sapiens Misshapen/NIK-related kinase (MINK), mRNA |
| 53 | 13292 | 26307 | 5.24 | 1.0E-44 | 7657334 | NT | Homo sapiens Misshapen/NIK-related kinase (MINK), mRNA |
| 594 | 13784 | 26804 | 1.63 | 1.0E-44 | AW853132.1 | EST_HUMAN | RC1-CT0249-030300-026-h12 CT0249 Homo sapiens cDNA |
| 1224 | 14384 | | 1.96 | 1.0E-44 | AW994803.1 | EST_HUMAN | RC1-BN0039-110300-012-b01 BN0039 Homo sapiens cDNA |
| 1605 | 14758 | | 8.06 | 1.0E-44 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 2299 | 15431 | 28563 | 6.17 | 1.0E-44 | AA434554.1 | EST_HUMAN | zw53d02.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:773763 5' similar to contains THR.t3 THR repetitive element ; |
| 2299 | 15431 | 28564 | 6.17 | 1.0E-44 | AA434554.1 | EST_HUMAN | zw53d02.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:773763 5' similar to contains THR.t3 THR repetitive element ; |
| 2818 | 15932 | 29043 | 1.74 | 1.0E-44 | AF196779.1 | NT | Homo sapiens transcription factor IGHM enhancer 3, JM11 protein, JM4 protein, JM5 protein, T54 protein, JM10 protein, A4 differentiation-dependent protein, triple LIM domain protein 6, and synaptophycin genes, complete cds; and L-type calcium channel a> |
| 3819 | 16979 | | 3 | 1.0E-44 | AA455869.1 | EST_HUMAN | aa01c09.s1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:811984 3' |
| 5221 | 18343 | 31314 | 0.68 | 1.0E-44 | AJ130755.1 | NT | Homo sapiens alpha satellite DNA, M1 monomer type |
| 5221 | 18343 | 31315 | 0.68 | 1.0E-44 | AJ130755.1 | NT | Homo sapiens alpha satellite DNA, M1 monomer type |
| 8460 | 21541 | 35070 | 0.91 | 1.0E-44 | AW967073.1 | EST_HUMAN | EST379147 MAGE resequences, MAGJ Homo sapiens cDNA |
| 8460 | 21541 | 35071 | 0.91 | 1.0E-44 | AW967073.1 | EST_HUMAN | EST379147 MAGE resequences, MAGJ Homo sapiens cDNA |
| 8848 | 21927 | 35466 | 0.96 | 1.0E-44 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 9227 | 22305 | 35848 | 0.56 | 1.0E-44 | AI337183.1 | EST_HUMAN | qx88g07.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2009628 3' |
| 11264 | 24333 | | 4.13 | 1.0E-44 | AV714608.1 | EST_HUMAN | AV714608 DCB Homo sapiens cDNA clone DCBBYE03 5' |
| 11820 | 24809 | 38505 | 3.47 | 1.0E-44 | 10092664 | NT | Homo sapiens Sushi domain (SCR repeat) containing (BK65A6.2), mRNA |
| 11890 | 24878 | 38574 | 3.21 | 1.0E-44 | AW846967.1 | EST_HUMAN | RC1-CT0198-150999-011-C08 CT0198 Homo sapiens cDNA |
| 11890 | 24878 | 38575 | 3.21 | 1.0E-44 | AW846967.1 | EST_HUMAN | RC1-CT0198-150999-011-C08 CT0198 Homo sapiens cDNA |
| 4701 | 17836 | 30821 | 0.98 | 9.0E-45 | 8922391 | NT | Homo sapiens hypothetical protein FLJ10379 (FLJ10379), mRNA |
| 4701 | 17836 | 30822 | 0.98 | 9.0E-45 | 8922391 | NT | Homo sapiens hypothetical protein FLJ10379 (FLJ10379), mRNA |
| 6787 | 19942 | 33340 | 1.41 | 9.0E-45 | AB023212.1 | NT | Homo sapiens mRNA for KIAA0995 protein, partial cds |
| 2591 | 15716 | 28834 | 3.9 | 8.0E-45 | 5174718 | NT | Homo sapiens TRK-fused gene (NOTE: non-standard symbol and name) (TFG) mRNA |
| 5193 | 18315 | 31283 | 9.63 | 8.0E-45 | 5174718 | NT | Homo sapiens TRK-fused gene (NOTE: non-standard symbol and name) (TFG) mRNA |
| 8298 | 21380 | 34902 | 1.03 | 8.0E-45 | AA377985.1 | EST_HUMAN | EST90893 Synovial sarcoma Homo sapiens cDNA 5' end |
| 1583 | 14735 | | 2.36 | 6.0E-45 | AI675425.1 | EST_HUMAN | wb99c06.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2313802 3' similar to contains L1.t1 L1 repetitive element ; |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4087 | 17242 | | 3.77 | 6.0E-45 | AW157570.1 | EST_HUMAN | au83h07.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2782909 3' similar to SW:R13A_HUMAN P40429 60S RIBOSOMAL PROTEIN L13A ; |
| 12911 | 26154 | | 1.89 | 6.0E-45 | 11418213 | NT | Homo sapiens ADP-ribosylation factor GTPase activating protein 1 (ARFGAP1), mRNA |
| 915 | 14090 | | 1.71 | 5.0E-45 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 2058 | 15199 | 28313 | 4.42 | 5.0E-45 | BF333627.1 | EST_HUMAN | CM4-CN0044-180200-515-f01 CN0044 Homo sapiens cDNA |
| 3281 | 18455 | 29477 | 2.87 | 5.0E-45 | AI523766.1 | EST_HUMAN | tg94f07.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2116453 3' similar to SW:PAX1_MOUSE P09084 PAIRED BOX PROTEIN PAX-1. ; |
| 5629 | 18823 | 31897 | 8.95 | 5.0E-45 | AA397781.1 | EST_HUMAN | zt72d03.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:727877 3' similar to contains element TAR1 repetitive element ; |
| 6143 | 19321 | 32664 | 1.09 | 5.0E-45 | Y18933.1 | NT | Homo sapiens MCP-1 gene and enhancer region |
| 6143 | 19321 | 32665 | 1.09 | 5.0E-45 | Y18933.1 | NT | Homo sapiens MCP-1 gene and enhancer region |
| 6190 | 19366 | 32714 | 0.92 | 5.0E-45 | AB022318.1 | NT | Homo sapiens mRNA for inducible nitric oxide synthase, complete cds |
| 6190 | 19366 | 32715 | 0.92 | 5.0E-45 | AB022318.1 | NT | Homo sapiens mRNA for inducible nitric oxide synthase, complete cds |
| 6318 | 19490 | 32847 | 0.87 | 5.0E-45 | 11496268 | NT | Homo sapiens zinc finger protein 277 (ZNF277), mRNA |
| 6318 | 19490 | 32848 | 0.87 | 5.0E-45 | 11496268 | NT | Homo sapiens zinc finger protein 277 (ZNF277), mRNA |
| 8471 | 21552 | 35082 | 1.12 | 5.0E-45 | 11418704 | NT | Homo sapiens bone morphogenetic protein 5 (BMP5), mRNA |
| 9241 | 22318 | 35861 | 1.45 | 5.0E-45 | 4759223 | NT | Homo sapiens programmed cell death 5 (PDCD5), mRNA |
| 11997 | 24982 | 38688 | 2.5 | 5.0E-45 | 8923698 | NT | Homo sapiens golgin-like protein (GLP), mRNA |
| 1167 | 14330 | 27385 | 6.3 | 4.0E-45 | X95826.1 | NT | H.sapiens ART4 gene |
| 2365 | 15496 | 28622 | 2.15 | 4.0E-45 | BE266622.1 | EST_HUMAN | 601194440F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3538425 5' |
| 9157 | 22235 | | 0.81 | 4.0E-45 | AA226220.1 | EST_HUMAN | no26e07.s1 NCI_CGAP_Pr1 Homo sapiens cDNA clone IMAGE:1009284 similar to contains element L1 repetitive element ; |
| 12166 | 26089 | 31659 | 1.36 | 4.0E-45 | 11435947 | NT | Homo sapiens chromosome 12 open reading frame 3 (C12ORF3), mRNA |
| 3411 | 16580 | | 0.93 | 3.0E-45 | T71480.1 | EST_HUMAN | yd35f07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:110245 5' |
| 4199 | 16580 | | 1.03 | 3.0E-45 | T71480.1 | EST_HUMAN | yd35f07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:110245 5' |
| 6366 | 19536 | 32895 | 1.34 | 3.0E-45 | 6753651 | NT | Mus musculus dynein, axon, heavy chain 11 (Dnahc11), mRNA |
| 6366 | 19536 | 32896 | 1.34 | 3.0E-45 | 6753651 | NT | Mus musculus dynein, axon, heavy chain 11 (Dnahc11), mRNA |
| 8645 | 21725 | | 1.76 | 3.0E-45 | AV723976.1 | EST_HUMAN | AV723976 HTB Homo sapiens cDNA clone HTBAAG01 5' |
| 8991 | 22070 | 35610 | 4.31 | 3.0E-45 | 4758451 | NT | Homo sapiens golgi autoantigen, golgin subfamily a, 2 (GOLGA2) mRNA |
| 10515 | 23550 | 37159 | 7.52 | 3.0E-45 | AL163227.2 | NT | Homo sapiens chromosome 21 segment HS21C027 |
| 10515 | 23550 | 37160 | 7.52 | 3.0E-45 | AL163227.2 | NT | Homo sapiens chromosome 21 segment HS21C027 |
| 13040 | 26078 | | 3.45 | 3.0E-45 | X89211.1 | NT | H.sapiens DNA for endogenous retroviral like element |
| 2572 | 15697 | | 3.12 | 2.0E-45 | AL163218.2 | NT | Homo sapiens chromosome 21 segment HS21C018 |
| 3097 | 16273 | 29287 | 0.92 | 2.0E-45 | AJ243213.1 | NT | Homo sapiens partial 5-HT4 receptor gene, exons 2 to 5 |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit. BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6651 | 19810 | 33198 | 5.45 | 2.0E-45 | L01665.1 | NT | Human eosinophil Charcot-Leyden crystal (CLC) protein (lysophospholipase) gene, promoter and exon 1 |
| 7786 | 20842 | 34334 | 1.1 | 2.0E-45 | BE782184.1 | EST_HUMAN | 601467793F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3870838 5' |
| 8610 | 21690 | 35228 | 0.91 | 2.0E-45 | AW834834.1 | EST_HUMAN | RC0-LT0001-150200-032-d11 LT0001 Homo sapiens cDNA |
| 9784 | 22824 | 36402 | 0.51 | 2.0E-45 | AI636786.1 | EST_HUMAN | ts56a01.x1 NCI_CGAP_Kid8 Homo sapiens cDNA clone IMAGE:2232552 3' |
| 11042 | 25867 | 37754 | 12.66 | 2.0E-45 | BE934350.1 | EST_HUMAN | MR0-HT0923-190800-201-e02 HT0923 Homo sapiens cDNA |
| 11450 | 24510 | 38177 | 2.71 | 2.0E-45 | AA458770.1 | EST_HUMAN | aa87f12.r1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:838319 5' similar to TR:G1144569 G1144569 R-SLY1. ; |
| 11794 | 24784 | 38481 | 3.35 | 2.0E-45 | AW270280.1 | EST_HUMAN | xp72a03.x1 NCI_CGAP_Ov40 Homo sapiens cDNA clone IMAGE:2745868 3' |
| 11794 | 24784 | 38482 | 3.35 | 2.0E-45 | AW270280.1 | EST_HUMAN | xp72a03.x1 NCI_CGAP_Ov40 Homo sapiens cDNA clone IMAGE:2745868 3' |
| 13087 | 25710 |  | 2.73 | 2.0E-45 | 11418157 | NT | Homo sapiens calcium channel, voltage-dependent, alpha 1I subunit (CACNA1I), mRNA |
| 126 | 13617 |  | 1.22 | 1.0E-45 | BE389855.1 | EST_HUMAN | 601284360F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3606183 5' |
| 422 | 13617 |  | 1.99 | 1.0E-45 | BE389855.1 | EST_HUMAN | 601284360F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3606183 5' |
| 485 | 13679 | 26714 | 1.02 | 1.0E-45 | 4506412 | NT | Homo sapiens RAP1A, member of RAS oncogene family (RAP1A), mRNA |
| 1201 | 14363 | 27423 | 1.66 | 1.0E-45 | 7657290 | NT | Homo sapiens Langerhans cell specific c-type lectin (LANGERIN), mRNA |
| 3172 | 16347 | 29354 | 10.41 | 1.0E-45 | U32169.1 | NT | Human pro-a2 chain of collagen type XI (COL11A2) gene, complete cds |
| 3581 | 16746 | 29764 | 0.85 | 1.0E-45 | 8659558 | NT | Homo sapiens chromosome 21 open reading frame 1 (C21orf4), mRNA |
| 3664 | 16827 | 29836 | 0.69 | 1.0E-45 | AB046811.1 | NT | Homo sapiens mRNA for KIAA1591 protein, partial cds |
| 4599 | 17736 | 30716 | 6.4 | 1.0E-45 | BE396633.1 | EST_HUMAN | 601289116F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3619803 5' |
| 4848 | 17981 |  | 1.05 | 1.0E-45 | H57443.1 | EST_HUMAN | yr05b02.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:204363 5' |
| 5081 | 18209 | 31181 | 1.56 | 1.0E-45 | 11545796 | NT | Homo sapiens niban protein (NIBAN), mRNA |
| 8220 | 21302 | 34822 | 0.7 | 1.0E-45 | 11422236 | NT | Homo sapiens peroxisomal biogenesis factor 14 (PEX14), mRNA |
| 8220 | 21302 | 34823 | 0.7 | 1.0E-45 | 11422236 | NT | Homo sapiens peroxisomal biogenesis factor 14 (PEX14), mRNA |
| 8806 | 21885 | 35426 | 0.9 | 1.0E-45 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 9321 | 22397 | 35950 | 3.92 | 1.0E-45 | BE887843.1 | EST_HUMAN | 601511226F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912535 5' |
| 9722 | 22787 | 36358 | 0.99 | 1.0E-45 | AB002297.1 | NT | Human mRNA for KIAA0299 gene, partial cds |
| 12369 | 25263 | 32117 | 3.5 | 1.0E-45 | 11418099 | NT | Homo sapiens protein kinase C, alpha binding protein (PRKCABP), mRNA |
| 12562 | 25384 |  | 19.43 | 1.0E-45 | 11526291 | NT | Homo sapiens hypothetical protein FLJ20454 (FLJ20454), mRNA |
| 12568 | 25387 |  | 6.42 | 1.0E-45 | 11418177 | NT | Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA |
| 13047 | 25686 | 31963 | 4.02 | 1.0E-45 | 11418157 | NT | Homo sapiens calcium channel, voltage-dependent, alpha 1I subunit (CACNA1I), mRNA |
| 8423 | 21504 | 35037 | 2.71 | 9.0E-46 | 9910293 | NT | Mus musculus keratin complex 2, gene 6g (Krt2-6g), mRNA |
| 8835 | 21914 |  | 6.82 | 9.0E-46 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 10697 | 23730 | 37335 | 6.89 | 9.0E-46 | AW246964.1 | EST_HUMAN | 2822449.5prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2822449 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2513 | 15639 | 28760 | 7.67 | 8.0E-46 | AI433261.1 | EST_HUMAN | ti32f08.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2132199 3' similar to gb:J00314_rna2 TUBULIN BETA-1 CHAIN (HUMAN); |
| 2513 | 15639 | 28761 | 7.67 | 8.0E-46 | AI433261.1 | EST_HUMAN | ti32f08.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2132199 3' similar to gb:J00314_rna2 TUBULIN BETA-1 CHAIN (HUMAN); |
| 8244 | 21326 | | 2.72 | 8.0E-46 | BE167244.1 | EST_HUMAN | RC5-HT0506-280200-012-C12 HT0506 Homo sapiens cDNA |
| 4703 | 17838 | | 4.79 | 7.0E-46 | BE386165.1 | EST_HUMAN | 601277292F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3618119 5' |
| 4928 | 18058 | | 1.33 | 7.0E-46 | BE064386.1 | EST_HUMAN | RC4-BT0310-110300-015-f10 BT0310 Homo sapiens cDNA |
| 6167 | 19343 | 32689 | 4 | 7.0E-46 | 8922708 | NT | Homo sapiens hypothetical protein FLJ10847 (FLJ10847), mRNA |
| 6623 | 19783 | 33171 | 1.8 | 7.0E-46 | BF105845.1 | EST_HUMAN | 601822835F1 NIH_MGC_77 Homo sapiens cDNA clone IMAGE:4042736 5' |
| 12706 | 25469 | | 2.6 | 7.0E-46 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 2812 | 15926 | 29037 | 6.87 | 6.0E-46 | AI884381.1 | EST_HUMAN | wm31f08.x1 NCI_CGAP_Ut4 Homo sapiens cDNA clone IMAGE:2437575 3' similar to contains MER19.t2 MER19 repetitive element ; |
| 2812 | 15926 | 29038 | 6.87 | 6.0E-46 | AI884381.1 | EST_HUMAN | wm31f08.x1 NCI_CGAP_Ut4 Homo sapiens cDNA clone IMAGE:2437575 3' similar to contains MER19.t2 MER19 repetitive element ; |
| 6257 | 19431 | 32778 | 11.57 | 6.0E-46 | AI635448.1 | EST_HUMAN | ts58h10.x1 NCI_CGAP_Kid8 Homo sapiens cDNA clone IMAGE:2232835 3' similar to TR:O60363 O60363 SA GENE. ; |
| 7366 | 20445 | 33907 | 0.99 | 6.0E-46 | AW513244.1 | EST_HUMAN | xo42e04.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2706654 3' similar to gb:L08069 DNAJ PROTEIN HOMOLOG 2 (HUMAN); |
| 7541 | 20614 | 34091 | 0.67 | 6.0E-46 | BF509740.1 | EST_HUMAN | UI-H-BI4-apg-b-06-0-UI.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3087298 3' |
| 11673 | 23901 | | 2.14 | 6.0E-46 | BE784971.1 | EST_HUMAN | 601478409F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3880995 5' |
| 209 | 13432 | | 5.31 | 5.0E-46 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 3617 | 16781 | 29796 | 1.17 | 5.0E-46 | BE677194.1 | EST_HUMAN | 7d81g01.x1 Lupski_dorsal_root_ganglion Homo sapiens cDNA clone IMAGE:3279408 3' |
| 3617 | 16781 | 29797 | 1.17 | 5.0E-46 | BE677194.1 | EST_HUMAN | 7d81g01.x1 Lupski_dorsal_root_ganglion Homo sapiens cDNA clone IMAGE:3279408 3' |
| 6874 | 20026 | 33436 | 1.52 | 5.0E-46 | BF590442.1 | EST_HUMAN | naa38f07.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3258767 3' similar to TR:O75202 O75202 HOMOLOG OF RAT KIDNEY-SPECIFIC ; |
| 7080 | 20174 | 33596 | 3.69 | 5.0E-46 | BF347229.1 | EST_HUMAN | 602021164F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4156670 5' |
| 7244 | 20327 | 33772 | 0.75 | 5.0E-46 | AW682253.1 | EST_HUMAN | QV4-ST0212-120100-075-f09 ST0212 Homo sapiens cDNA |
| 7544 | 20616 | 34093 | 0.59 | 5.0E-46 | BE549744.1 | EST_HUMAN | 7b38b05.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3230481 3' |
| 658 | 13844 | | 3.95 | 4.0E-46 | AA601143.1 | EST_HUMAN | no54e09.s1 NCI_CGAP_SS1 Homo sapiens cDNA clone IMAGE:1104520 3' similar to gb:X53741_rna1 FIBULIN-1, ISOFORM A PRECURSOR (HUMAN); |
| 1740 | 14889 | 27981 | 2.99 | 4.0E-46 | AW770544.1 | EST_HUMAN | hl88c03.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3008836 3' similar to gb:X14008_rna1 LYSOZYME C PRECURSOR (HUMAN);contains element MER37 repetitive element ; |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1740 | 14889 | 27982 | 2.99 | 4.0E-46 | AW770544.1 | EST_HUMAN | hl86c03.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3008836 3' similar to gb:X14008_rna1 LYSOZYME C PRECURSOR (HUMAN);contains element MER37 repetitive element ; |
| 2798 | 15913 | 29021 | 7.4 | 4.0E-46 | M18048.1 | NT | Human endogenous retrovirus RTVL-H2 |
| 5563 | 18750 | 31786 | 2.1 | 4.0E-46 | M36852.1 | NT | Human Ig germline gamma-3 heavy-chain gene V region, partial cds |
| 5553 | 18750 | 31787 | 2.1 | 4.0E-46 | M36852.1 | NT | Human Ig germline gamma-3 heavy-chain gene V region, partial cds |
| 12851 | 25565 | 31989 | 1.36 | 4.0E-46 | AB002059.1 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 2369 | 15490 | 28620 | 0.94 | 3.0E-46 | 7657203 | NT | Homo sapiens acidic 82 kDa protein mRNA (HSU15552), mRNA |
| 4513 | 17652 | 30640 | 1.21 | 3.0E-46 | 4506376 | NT | Homo sapiens mitogen-activated protein kinase kinase kinase kinase 3 (MAP4K3), mRNA |
| 4898 | 18028 | 31015 | 1.11 | 3.0E-46 | Z73660.1 | NT | H.sapiens Ig lambda light chain variable region gene (7c.11.2) germline; Ig-Light-Lambda; VLambda |
| 4898 | 18028 | 31016 | 1.11 | 3.0E-46 | Z73660.1 | NT | H.sapiens Ig lambda light chain variable region gene (7c.11.2) germline; Ig-Light-Lambda; VLambda |
| 8949 | 22028 | 35569 | 12.45 | 3.0E-46 | AI831462.1 | EST_HUMAN | wj49c04.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2406150 3' similar to contains THR.b2 THR repetitive element ; |
| 9206 | 22284 | 35824 | 0.61 | 3.0E-46 | L08850.1 | NT | Human AD amyloid mRNA, complete cds |
| 9206 | 22284 | 35825 | 0.61 | 3.0E-46 | L08850.1 | NT | Human AD amyloid mRNA, complete cds |
| 11873 | 24861 | 38556 | 1.78 | 3.0E-46 | D31765.1 | NT | Human mRNA for KIAA0061 gene, partial cds |
| 860 | 14037 | 27099 | 12.65 | 2.0E-46 | AA468646.1 | EST_HUMAN | ne06a09.s1 NCI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:880408 3' similar to contains THR.b2 THR repetitive element ; |
| 1593 | 14746 |  | 3.78 | 2.0E-46 | AA678246.1 | EST_HUMAN | zi27a11.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:431996 3' |
| 1671 | 14823 | 27906 | 5.63 | 2.0E-46 | U78027.1 | NT | Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds |
| 6089 | 18217 | 31188 | 1.26 | 2.0E-46 | AA399286.1 | EST_HUMAN | zt59e02.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:726650 5' similar to SW:RSP1_MOUSE Q01730 RSP-1 PROTEIN. ; |
| 7653 | 20721 | 34197 | 7.1 | 2.0E-46 | 9910569 | NT | Mus musculus sperm tail associated protein (Stap), mRNA |
| 8260 | 21342 |  | 1.29 | 2.0E-46 | BE869161.1 | EST_HUMAN | 601445137F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3849297 5' |
| 11524 | 24580 |  | 1.82 | 2.0E-46 | 7657233 | NT | Homo sapiens small acidic protein (IMAGE145052), mRNA |
| 12294 | 26040 |  | 1.4 | 2.0E-46 | BF028854.1 | EST_HUMAN | 601765225F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3997326 5' |
| 12555 | 25931 |  | 1.57 | 2.0E-46 | H48391.1 | EST_HUMAN | yr32d01.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:206977 5' |
| 12596 | 26401 |  | 3.31 | 2.0E-46 | AA001786.1 | EST_HUMAN | zh84f12.r1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:428015 5' |
| 12934 | 25923 | 31864 | 4.26 | 2.0E-46 | AW277214.1 | EST_HUMAN | xq78h03.x1 NCI_CGAP_Lu34 Homo sapiens cDNA clone IMAGE:2756789 3' |
| 1261 | 14418 | 27483 | 4.31 | 1.0E-46 | 4502694 | NT | Homo sapiens cell division cycle 10 (homologous to CDC10 of S. cerevisiae) (CDC10) mRNA |
| 2356 | 15487 | 28619 | 4.88 | 1.0E-46 | AW978516.1 | EST_HUMAN | EST390625 MAGE resequences, MAGP Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2473 | 15600 | 28725 | 3.53 | 1.0E-46 | H97330.1 | EST_HUMAN | EST48b095 WATM1 Homo sapiens cDNA clone 48b095 |
| 3321 | 16494 | 29511 | 2.12 | 1.0E-46 | AA631912.1 | EST_HUMAN | np78b02.s1 NCI_CGAP_Pr2 Homo sapiens cDNA clone IMAGE:1132395 similar to gb:X76717 H.sapiens MT-1l mRNA. (HUMAN); |
| 4995 | 18124 | | 3.13 | 1.0E-46 | AB023197.1 | NT | Homo sapiens mRNA for KIAA0980 protein, partial cds |
| 5817 | 19007 | 32313 | 5.89 | 1.0E-46 | BF194707.1 | EST_HUMAN | 7o92b01.x1 NCI_CGAP_Ov18 Homo sapiens cDNA clone IMAGE:3643705 3' |
| 6098 | 25818 | 32609 | 5.34 | 1.0E-46 | 8923762 | NT | Homo sapiens centaurin-alpha 2 protein (HSA272195), mRNA |
| 6098 | 25818 | 32610 | 5.34 | 1.0E-46 | 8923762 | NT | Homo sapiens centaurin-alpha 2 protein (HSA272195), mRNA |
| 6746 | 19902 | 33295 | 0.64 | 1.0E-46 | BF196247.1 | EST_HUMAN | 7n48e07.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3567852 3' similar to contains element MER22 repetitive element ; |
| 11102 | 19007 | 32313 | 3.72 | 1.0E-46 | BF194707.1 | EST_HUMAN | 7o92b01.x1 NCI_CGAP_Ov18 Homo sapiens cDNA clone IMAGE:3643705 3' |
| 11410 | 24471 | 38136 | 1.61 | 1.0E-46 | AJ245621.1 | NT | Homo sapiens CTL2 gene |
| 12323 | 25233 | 32105 | 1.39 | 1.0E-46 | BF531102.1 | EST_HUMAN | 602072264F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4215398 5' |
| 12323 | 25233 | 32106 | 1.39 | 1.0E-46 | BF531102.1 | EST_HUMAN | 602072264F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4215398 5' |
| 13176 | 25764 | | 1.99 | 1.0E-46 | AV715377.1 | EST_HUMAN | AV715377 DCB Homo sapiens cDNA clone DCBAIE03 5' |
| 787 | 13966 | | 3.7 | 9.0E-47 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 5047 | 18175 | 31152 | 3.05 | 9.0E-47 | AW770928.1 | EST_HUMAN | hl93e04.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3009634 3' similar to TR:O75703 O75703 HYPOTHETICAL 12.4 KD PROTEIN. ; |
| 6506 | 19672 | 33039 | 0.86 | 9.0E-47 | 11425439 | NT | Homo sapiens zinc finger protein ZNF286 (ZNF286), mRNA |
| 11388 | 24449 | 38110 | 1.4 | 9.0E-47 | 11432209 | NT | Homo sapiens similar to aldo-keto reductase family 1, member B1 (aldose reductase) (H. sapiens) (LOC63093), mRNA |
| 12874 | 26027 | 31675 | 1.64 | 9.0E-47 | 11417966 | NT | Homo sapiens SEC14 (S. cerevisiae)-like 2 (SEC14L2), mRNA |
| 1851 | 14997 | 28100 | 32.2 | 8.0E-47 | Y18536.1 | NT | Homo sapiens HLA-C gene, exon 5, individual 19323 |
| 1851 | 14997 | 28101 | 32.2 | 8.0E-47 | Y18536.1 | NT | Homo sapiens HLA-C gene, exon 5, individual 19323 |
| 2781 | 15897 | 29007 | 1.5 | 8.0E-47 | 5453955 | NT | Homo sapiens protein phosphatase 2, regulatory subunit B (B56), epsilon isoform (PPP2R5E) mRNA |
| 3089 | 16265 | 29283 | 2.04 | 8.0E-47 | AJ229043.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22, segment 3/3 |
| 3715 | 16876 | 29881 | 0.77 | 8.0E-47 | AB041926.1 | NT | Homo sapiens mRNA for GCK family kinase MINK-2, complete cds |
| 3715 | 16876 | 29882 | 0.77 | 8.0E-47 | AB041926.1 | NT | Homo sapiens mRNA for GCK family kinase MINK-2, complete cds |
| 12962 | 25922 | | 1.99 | 7.0E-47 | AV683284.1 | EST_HUMAN | AV683284 GKC Homo sapiens cDNA clone GKCASH11 5' |
| 2613 | 15737 | 28851 | 3.04 | 6.0E-47 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 8890 | 21969 | 35505 | 0.52 | 6.0E-47 | U77054.1 | EST_HUMAN | HSU77054 Human Homo sapiens cDNA clone N7 |
| 9476 | 22533 | 36097 | 6.83 | 6.0E-47 | AI695189.1 | EST_HUMAN | tz98h02.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2296659 3' |
| 9913 | 22953 | 36538 | 0.69 | 6.0E-47 | AB042824.1 | NT | Homo sapiens RECQL5 beta mRNA for DNA helicase recQ5 beta, complete cds |
| 9913 | 22953 | 36539 | 0.69 | 6.0E-47 | AB042824.1 | NT | Homo sapiens RECQL5 beta mRNA for DNA helicase recQ5 beta, complete cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6707 | 19865 | 33255 | 5.73 | 5.0E-47 | 11423972 | NT | Homo sapiens CDC37 (cell division cycle 37, S. cerevisiae, homolog) (CDC37), mRNA |
| 11036 | 24114 | | 5.58 | 5.0E-47 | M78590.1 | EST_HUMAN | EST00738 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBCF07 |
| 1432 | 14585 | 27660 | 7.03 | 4.0E-47 | 4557556 | NT | Homo sapiens E1A binding protein p300 (EP300) mRNA |
| 6971 | 20199 | 33625 | 0.82 | 4.0E-47 | BE938896.1 | EST_HUMAN | MR4-TN0108-280800-201-d04 TN0108 Homo sapiens cDNA |
| 8677 | 21757 | 35292 | 2.22 | 4.0E-47 | BE616483.1 | EST_HUMAN | 601280486F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3622437 5' |
| 8677 | 21757 | 35293 | 2.22 | 4.0E-47 | BE616483.1 | EST_HUMAN | 601280486F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3622437 5' |
| 8818 | 21897 | 35436 | 0.83 | 4.0E-47 | AW993777.1 | EST_HUMAN | RC3-BN0034-220300-015-f05 BN0034 Homo sapiens cDNA |
| 11936 | 24922 | | 1.98 | 4.0E-47 | AW515509.1 | EST_HUMAN | xx66b07.x1 NCI_CGAP_Lym12 Homo sapiens cDNA clone IMAGE:2848597 3' similar to SW:INT6_MOUSE Q64252 VIRAL INTEGRATION SITE PROTEIN INT-6. [1]; |
| 558 | 13751 | 26778 | 2.09 | 3.0E-47 | BE907634.1 | EST_HUMAN | 601497639F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3899721 5' |
| 558 | 13751 | 26779 | 2.09 | 3.0E-47 | BE907634.1 | EST_HUMAN | 601497639F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3899721 5' |
| 841 | 14019 | 27075 | 3.99 | 3.0E-47 | N57483.1 | EST_HUMAN | yy54b04.s1 Soares_multiple_sclerosis_2NbHMSP Homo sapiens cDNA clone IMAGE:277327 3' |
| 968 | 14141 | 27202 | 10.04 | 3.0E-47 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 3376 | 16548 | 29562 | 0.97 | 3.0E-47 | 4504116 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 4073 | 17229 | | 6.61 | 3.0E-47 | U93181.1 | NT | Homo sapiens nuclear dual-specificity phosphatase (SBF1) mRNA, partial cds |
| 4482 | 17622 | 30603 | 1.14 | 3.0E-47 | M12959.1 | NT | Human T-cell receptor active alpha-chain mRNA from JM cell line, complete cds |
| 6136 | 19315 | 32654 | 4.68 | 3.0E-47 | AW408800.1 | EST_HUMAN | UI-HF-BM0-adx-d-07-0-UI.r1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3063205 5' |
| 6136 | 19316 | 32655 | 4.68 | 3.0E-47 | AW408800.1 | EST_HUMAN | UI-HF-BM0-adx-d-07-0-UI.r1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3063205 5' |
| 6694 | 19852 | | 1.71 | 3.0E-47 | AI222413.1 | EST_HUMAN | qh04e07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843716 3' |
| 7540 | 20613 | 34089 | 0.88 | 3.0E-47 | AI819755.1 | EST_HUMAN | wj11h08.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2402559 3' |
| 7540 | 20613 | 34090 | 0.88 | 3.0E-47 | AI819755.1 | EST_HUMAN | wj11h08.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2402559 3' |
| 9033 | 22112 | 35654 | 0.77 | 3.0E-47 | AW963796.1 | EST_HUMAN | EST375869 MAGE resequences, MAGH Homo sapiens cDNA |
| 9033 | 22112 | 35655 | 0.77 | 3.0E-47 | AW963796.1 | EST_HUMAN | EST375869 MAGE resequences, MAGH Homo sapiens cDNA |
| 152 | 13377 | 26409 | 1.21 | 2.0E-47 | 4505318 | NT | Homo sapiens myosin phosphatase, target subunit 2 (MYPT2), mRNA |
| 990 | 14162 | 27221 | 2.45 | 2.0E-47 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 990 | 14162 | 27222 | 2.45 | 2.0E-47 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 1598 | 14751 | | 0.95 | 2.0E-47 | AI969279.1 | EST_HUMAN | wq98b02.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2479851 3' |
| 1623 | 14775 | 27859 | 1.61 | 2.0E-47 | 7662109 | NT | Homo sapiens KIAA0426 gene product (KIAA0426), mRNA |
| 1712 | 14863 | 27952 | 4.49 | 2.0E-47 | AA524514.1 | EST_HUMAN | ng43h12.s1 NCI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:937607 3' |
| 4467 | 17607 | 30585 | 1.61 | 2.0E-47 | 4504866 | NT | Homo sapiens ring finger protein (C3HC4 type) 8 (RNF8), mRNA |
| 4503 | 17643 | 30628 | 1.67 | 2.0E-47 | AA569592.1 | EST_HUMAN | nf23g07.s1 NCI_CGAP_Pr1 Homo sapiens cDNA clone IMAGE:914652 |
| 4503 | 17643 | 30629 | 1.67 | 2.0E-47 | AA569592.1 | EST_HUMAN | nf23g07.s1 NCI_CGAP_Pr1 Homo sapiens cDNA clone IMAGE:914652 |
| 4628 | 17764 | 30746 | 2.14 | 2.0E-47 | 5174648 | NT | Homo sapiens Rev/Rex activation domain binding protein-related (RAB-R) mRNA |
| 4933 | 18063 | 31046 | 1.25 | 2.0E-47 | AW965166.1 | EST_HUMAN | EST377239 MAGE resequences, MAGI Homo sapiens cDNA |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5245 | 18366 | | 0.71 | 2.0E-47 | AI041126.1 | EST_HUMAN | ov61h03.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1641845 3' |
| 5904 | 19093 | 32407 | 0.8 | 2.0E-47 | AF073921.1 | NT | Homo sapiens regulator of G-protein signaling 6 variant form (RGS6) mRNA, complete cds |
| 6097 | 19278 | 32607 | 1.32 | 2.0E-47 | BE778475.1 | EST_HUMAN | 601463932F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3867487 5' |
| 6097 | 19278 | 32608 | 1.32 | 2.0E-47 | BE778475.1 | EST_HUMAN | 601463932F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3867487 5' |
| 7876 | 25854 | | 1.34 | 2.0E-47 | L09731.1 | NT | Homo sapiens 5-hydroxytryptamine 1D receptor pseudogene with an Alu repeat insertion |
| 8151 | 21233 | 34753 | 1.96 | 2.0E-47 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 8151 | 21233 | 34754 | 1.96 | 2.0E-47 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 8915 | 21994 | 35533 | 1.76 | 2.0E-47 | AF071771.1 | NT | Homo sapiens SPH-binding factor mRNA, partial cds |
| 9690 | 22739 | 36308 | 1.27 | 2.0E-47 | 11526136 | NT | Homo sapiens BTG family, member 3 (BTG3), mRNA |
| 12357 | 26073 | 31653 | 3.36 | 2.0E-47 | R42423.1 | EST_HUMAN | yf92e08.s1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:29966 3' similar to contains OFR repetitive element ; |
| 12394 | 26076 | | 1.87 | 2.0E-47 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 1437 | 14590 | 27663 | 6.42 | 1.0E-47 | AI333429.1 | EST_HUMAN | qp99h03.x1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:1931189 3' |
| 3926 | 17085 | 30080 | 1.1 | 1.0E-47 | BE280477.1 | EST_HUMAN | 601155321F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3138893 5' |
| 3926 | 17085 | 30081 | 1.1 | 1.0E-47 | BE280477.1 | EST_HUMAN | 601155321F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3138893 5' |
| 5187 | 18309 | 31275 | 2.4 | 1.0E-47 | AW813906.1 | EST_HUMAN | RC3-ST0197-130400-017-h02 ST0197 Homo sapiens cDNA |
| 7189 | 20054 | 33464 | 10.76 | 1.0E-47 | AI880886.1 | EST_HUMAN | at19e06.x1 Barstead aorta HPLRB6 Homo sapiens cDNA clone IMAGE:2355588 3' similar to gb:M22995 RAS-RELATED PROTEIN RAP-1A (HUMAN); |
| 9069 | 22148 | | 4.24 | 1.0E-47 | AW664648.1 | EST_HUMAN | hi84a11.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2978972 3' similar to gb:M26326 KERATIN, TYPE I CYTOSKELETAL 18 (HUMAN); |
| 10564 | 23599 | 37205 | 2.26 | 1.0E-47 | L30115.1 | NT | Papio hamadryas alcohol dehydrogenase class I (ADH) gene, 5' region |
| 1643 | 14795 | 27879 | 3.84 | 9.0E-48 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 3646 | 16809 | 29823 | 0.73 | 9.0E-48 | BF359947.1 | EST_HUMAN | CM2-MT0100-310700-290-f05 MT0100 Homo sapiens cDNA |
| 5797 | 18987 | 32290 | 1.1 | 9.0E-48 | BE888196.1 | EST_HUMAN | 601511714F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913106 5' |
| 5797 | 18987 | 32291 | 1.1 | 9.0E-48 | BE888196.1 | EST_HUMAN | 601511714F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913106 5' |
| 6226 | 19401 | 32751 | 0.57 | 9.0E-48 | AI833168.1 | EST_HUMAN | at75h09.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2377889 3' similar to TR:O60844 O60844 HOMOLOG OF RAT ZYMOGEN GRANULE MEMBRANE PROTEIN. ; |
| 6355 | 19525 | 32882 | 0.71 | 9.0E-48 | AU123240.1 | EST_HUMAN | AU123240 NT2RM1 Homo sapiens cDNA clone NT2RM1000978 5' |
| 11378 | 24439 | 36098 | 3.06 | 9.0E-48 | BE393813.1 | EST_HUMAN | 601310479F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3632083 5' |
| 1279 | 14436 | | 1.75 | 8.0E-48 | 4501900 | NT | Homo sapiens aminoacylase 1 (ACY1), mRNA |
| 1280 | 14436 | | 1.65 | 8.0E-48 | 4501900 | NT | Homo sapiens aminoacylase 1 (ACY1), mRNA |
| 3205 | 16380 | 29390 | 5.72 | 8.0E-48 | AW768477.1 | EST_HUMAN | hk61b03.x1 NCI_CGAP_Lym12 Homo sapiens cDNA clone IMAGE:3001133 3' similar to gb:X64707 BREAST BASIC CONSERVED PROTEIN 1 (HUMAN); |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3205 | 16380 | 29391 | 5.72 | 8.0E-48 | AW768477.1 | EST_HUMAN | hk61b03.x1 NCI_CGAP_Lym12 Homo sapiens cDNA clone IMAGE:3001133 3' similar to gb:X64707 BREAST BASIC CONSERVED PROTEIN 1 (HUMAN); |
| 4041 | 17197 | 30208 | 0.66 | 8.0E-48 | 4504116 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 503 | 13698 | | 2.68 | 7.0E-48 | AB033035.1 | NT | Homo sapiens mRNA for KIAA1209 protein, partial cds |
| 504 | 13698 | | 16.69 | 7.0E-48 | AB033036.1 | NT | Homo sapiens mRNA for KIAA1209 protein, partial cds |
| 1527 | 14680 | 27761 | 1.96 | 7.0E-48 | 6912719 | NT | Homo sapiens tousled-like kinase 1 (TLK1), mRNA |
| 1667 | 14819 | 27902 | 5.39 | 7.0E-48 | 5730038 | NT | Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA |
| 6685 | 19843 | 33233 | 24.01 | 7.0E-48 | 11416831 | NT | Homo sapiens histidyl-tRNA synthetase (HARS), mRNA |
| 12125 | 25105 | 38809 | 2.98 | 7.0E-48 | R19623.1 | EST_HUMAN | yg37b02.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:34747 5'. |
| 3687 | 16850 | 29858 | 0.88 | 6.0E-48 | AI761111.1 | EST_HUMAN | wi69h03.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2398613 3' |
| 6183 | 19359 | 32707 | 0.84 | 6.0E-48 | AB006955.1 | NT | Homo sapiens mRNA for AIE-75, complete cds |
| 6924 | 20239 | 33674 | 0.93 | 6.0E-48 | 11420995 | NT | Homo sapiens BMX non-receptor tyrosine kinase (BMX), mRNA |
| 7628 | 25849 | 34172 | 0.78 | 6.0E-48 | AB046844.1 | NT | Homo sapiens mRNA for KIAA1624 protein, partial cds |
| 7628 | 25849 | 34173 | 0.78 | 6.0E-48 | AB046844.1 | NT | Homo sapiens mRNA for KIAA1624 protein, partial cds |
| 9323 | 22399 | 35953 | 1.57 | 6.0E-48 | AF026816.1 | NT | Homo sapiens putative oncogene protein mRNA, partial cds |
| 9741 | 22806 | 36382 | 1.87 | 6.0E-48 | 11427428 | NT | Homo sapiens hypothetical protein FLJ11006 (FLJ11006), mRNA |
| 9890 | 22930 | 36514 | 2.84 | 6.0E-48 | AA189080.1 | EST_HUMAN | zq45b06.s1 Stratagene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:632627 3' similar to contains Alu repetitive element; |
| 3384 | 18465 | 29569 | 1.48 | 5.0E-48 | 4826891 | NT | Homo sapiens phosphodiesterase 1A, calmodulin-dependent (PDE1A) mRNA |
| 8774 | 21853 | 35395 | 1.04 | 5.0E-48 | BE064410.1 | EST_HUMAN | RC4-BT0311-141199-011-h06 BT0311 Homo sapiens cDNA |
| 2829 | 15943 | 29053 | 1.02 | 4.0E-48 | R45715.1 | EST_HUMAN | Ha140-f Adult heart, Clontech Homo sapiens cDNA clone a140-f |
| 11200 | 24269 | 37905 | 3.11 | 4.0E-48 | AI620420.1 | EST_HUMAN | tu47a02.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2254154 3' |
| 12050 | 25031 | 38737 | 1.76 | 4.0E-48 | BE064410.1 | EST_HUMAN | RC4-BT0311-141199-011-h06 BT0311 Homo sapiens cDNA |
| 1416 | 14570 | 27643 | 1.91 | 3.0E-48 | AV690964.1 | EST_HUMAN | AV690964 GKC Homo sapiens cDNA clone GKCDRE12 5' |
| 2032 | 15173 | 28282 | 31.61 | 3.0E-48 | 4885170 | NT | Homo sapiens chromosome X open reading frame 6 (CXORF6) mRNA |
| 2032 | 15173 | 28283 | 31.61 | 3.0E-48 | 4885170 | NT | Homo sapiens chromosome X open reading frame 6 (CXORF6) mRNA |
| 3505 | 16672 | 29682 | 0.93 | 3.0E-48 | AF172453.1 | NT | Homo sapiens opioid growth factor receptor mRNA, complete cds |
| 3721 | 16882 | 29888 | 0.9 | 3.0E-48 | AW664531.1 | EST_HUMAN | hi14b12.x1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2972255 3' similar to SW:DCRB_HUMAN P56555 DOWN SYNDROME CRITICAL REGION PROTEIN B. ; |
| 4362 | 17505 | | 0.63 | 3.0E-48 | AA009541.1 | EST_HUMAN | zi04g03.r1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:429844 5' |
| 6015 | 19199 | 32516 | 2.08 | 3.0E-48 | BE084671.1 | EST_HUMAN | MR4-BT0657-060400-201-e10 BT0657 Homo sapiens cDNA |
| 7159 | 20292 | 33735 | 1.07 | 3.0E-48 | AF087913.1 | NT | Human endogenous retrovirus HERV-P-T47D |
| 8585 | 21666 | | 3.73 | 3.0E-48 | AA659930.1 | EST_HUMAN | nv03f05.s1 NCI_CGAP_Pr22 Homo sapiens cDNA clone IMAGE:1219137 3' similar to contains PTR5.b1 PTR5 repetitive element ; |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11114 | 24186 | 37818 | 8.1 | 3.0E-48 | BF514170.1 | EST_HUMAN | UI-H-BW1-ani-a-10-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3082267 3' |
| 5 | 13244 | 26245 | 0.66 | 2.0E-48 | AA465007.1 | EST_HUMAN | zx80c03.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:810052 5' |
| 46 | 13285 | 26294 | 1.7 | 2.0E-48 | AA631940.1 | EST_HUMAN | fmfc7 Regional genomic DNA specific cDNA library Homo sapiens cDNA clone CR17-26 |
| 4654 | 17790 | 30774 | 0.99 | 2.0E-48 | BE246065.1 | EST_HUMAN | TCBAP1D3842 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP3842 |
| 5935 | 19121 | 32433 | 0.64 | 2.0E-48 | AA613171.1 | EST_HUMAN | no18g01.s1 NCI_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1101072 3' |
| 5935 | 19121 | 32434 | 0.64 | 2.0E-48 | AA613171.1 | EST_HUMAN | no18g01.s1 NCI_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1101072 3' |
| 7688 | 20753 | 34236 | 3.99 | 2.0E-48 | AB040934.1 | NT | Homo sapiens mRNA for KIAA1601 protein, partial cds |
| 7688 | 20753 | 34237 | 3.99 | 2.0E-48 | AB040934.1 | NT | Homo sapiens mRNA for KIAA1601 protein, partial cds |
| 7703 | 20768 | 34253 | 3.54 | 2.0E-48 | 11496238 | NT | Homo sapiens v-rel avian reticuloendotheliosis viral oncogene homolog A (nuclear factor of kappa light polypeptide gene enhancer in B-cells 3 (p65)) (RELA), mRNA |
| 8550 | 21631 | 35168 | 1.13 | 2.0E-48 | AV743451.1 | EST_HUMAN | AV743451 CB Homo sapiens cDNA clone CBCCGG10 5' |
| 12109 | 25089 |  | 1.36 | 2.0E-48 | AW291799.1 | EST_HUMAN | UI-H-BI2-agl-b-11-0-UI.s1 NCI_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2724453 3' |
| 12320 | 13244 | 26245 | 2.98 | 2.0E-48 | AA465007.1 | EST_HUMAN | zx80c03.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:810052 5' |
| 12674 | 25990 | 31771 | 1.25 | 2.0E-48 | BE737154.1 | EST_HUMAN | 601305064F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3639782 5' |
| 57 | 13295 | 26311 | 2.33 | 1.0E-48 | 7706534 | NT | Homo sapiens cisplatin resistance-associated overexpressed protein (LOC51747), mRNA |
| 896 | 14072 | 27137 | 4.67 | 1.0E-48 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 1101 | 14266 | 27323 | 1.52 | 1.0E-48 | 7657430 | NT | Homo sapiens EBNA-2 co-activator (100kD) (p100), mRNA |
| 1101 | 14266 | 27324 | 1.52 | 1.0E-48 | 7657430 | NT | Homo sapiens EBNA-2 co-activator (100kD) (p100), mRNA |
| 1324 | 14481 | 27548 | 4.01 | 1.0E-48 | 5032032 | NT | Homo sapiens RNA binding motif protein 6 (RBM6) mRNA |
| 1968 | 15111 | 28212 | 13.8 | 1.0E-48 | AL163302.2 | NT | Homo sapiens chromosome 21 segment HS21C102 |
| 3577 | 16742 | 29759 | 0.94 | 1.0E-48 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 5240 | 18362 | 31330 | 1.1 | 1.0E-48 | M10976.1 | NT | Human endogenous retroviral DNA (4-1), complete retroviral segment |
| 6417 | 19586 | 32948 | 1.24 | 1.0E-48 | AI889077.1 | EST_HUMAN | td17c01.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:2075904 3' similar to TR:O14588 O14588 SIMILARITY TO U73941 ; |
| 6417 | 19586 | 32949 | 1.24 | 1.0E-48 | AI889077.1 | EST_HUMAN | td17c01.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:2075904 3' similar to TR:O14588 O14588 SIMILARITY TO U73941 ; |
| 6628 | 19788 |  | 0.87 | 1.0E-48 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 6727 | 19883 | 33274 | 0.59 | 1.0E-48 | AB028994.1 | NT | Homo sapiens mRNA for KIAA1071 protein, partial cds |
| 6727 | 19883 | 33275 | 0.59 | 1.0E-48 | AB028994.1 | NT | Homo sapiens mRNA for KIAA1071 protein, partial cds |
| 7407 | 20485 | 33954 | 2.21 | 1.0E-48 | 4755137 | NT | Homo sapiens huntingtin (Huntington disease) (HD) mRNA |
| 9031 | 22110 | 35651 | 0.65 | 1.0E-48 | 4758695 | NT | Homo sapiens mitogen-activated protein kinase kinase kinase 13 (MAP3K13), mRNA |
| 9031 | 22110 | 35652 | 0.65 | 1.0E-48 | 4758695 | NT | Homo sapiens mitogen-activated protein kinase kinase kinase 13 (MAP3K13), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9414 | 22488 | 36053 | 0.99 | 1.0E-48 | 4502838 | NT | Homo sapiens Chediak-Higashi syndrome 1 (CHS1) mRNA |
| 9468 | 22525 | 36089 | 6.79 | 1.0E-48 | AB033071.1 | NT | Homo sapiens mRNA for KIAA1245 protein, partial cds |
| 9781 | 22821 | 36399 | 4.74 | 1.0E-48 | BF304683.1 | EST_HUMAN | 601888096F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4122119 5' |
| 10581 | 23616 | 37221 | 4.23 | 1.0E-48 | 11429808 | NT | Homo sapiens B cell linker protein (SLP65), mRNA |
| 10581 | 23616 | 37222 | 4.23 | 1.0E-48 | 11429808 | NT | Homo sapiens B cell linker protein (SLP65), mRNA |
| 12282 | 26014 |  | 1.41 | 1.0E-48 | W26785.1 | EST_HUMAN | 15d6 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |
| 2064 | 15204 | 28320 | 0.97 | 8.0E-49 | AB026497.1 | NT | Mus musculus MysPDZ mRNA for myosin containing PDZ domain, complete cds |
| 6178 | 19354 | 32701 | 3.07 | 8.0E-49 | 10048417 | NT | Mus musculus T-box 20 (Tbx20), mRNA |
| 6178 | 19354 | 32702 | 3.07 | 8.0E-49 | 10048417 | NT | Mus musculus T-box 20 (Tbx20), mRNA |
| 8491 | 21572 | 35109 | 3.09 | 8.0E-49 | U23850.1 | NT | Human inositol 1,4,5 trisphosphate receptor type 1 mRNA, partial cds |
| 10194 | 23231 | 36822 | 0.93 | 8.0E-49 | AB008681.1 | NT | Homo sapiens gene for activin receptor type IIB, complete cds |
| 11096 | 24169 | 37804 | 3.65 | 8.0E-49 | AI623722.1 | EST_HUMAN | ts38d12.x1 NCI_CGAP_Ut4 Homo sapiens cDNA clone IMAGE:2230871 3' similar to contains Alu repetitive element;contains element PTR5 repetitive element ; |
| 12097 | 25077 | 38785 | 2.08 | 8.0E-49 | AA872183.1 | EST_HUMAN | ob78a08.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1337462 3' |
| 142 | 13602 | 26637 | 1.21 | 7.0E-49 | 5729990 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, ATPase, 4 (PSMC4) mRNA |
| 142 | 13602 | 26638 | 1.21 | 7.0E-49 | 5729990 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, ATPase, 4 (PSMC4) mRNA |
| 405 | 13602 | 26637 | 1.62 | 7.0E-49 | 5729990 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, ATPase, 4 (PSMC4) mRNA |
| 405 | 13602 | 26638 | 1.62 | 7.0E-49 | 5729990 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, ATPase, 4 (PSMC4) mRNA |
| 406 | 13602 | 26637 | 2.25 | 7.0E-49 | 5729990 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, ATPase, 4 (PSMC4) mRNA |
| 406 | 13602 | 26638 | 2.25 | 7.0E-49 | 5729990 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, ATPase, 4 (PSMC4) mRNA |
| 1248 | 14407 | 27469 | 4.37 | 7.0E-49 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 4772 | 17907 | 30890 | 0.9 | 7.0E-49 | O60811 | SWISSPROT | HYPOTHETICAL PROTEIN DJ845O24.3 |
| 5576 | 18771 | 31815 | 2.33 | 7.0E-49 | AI807191.1 | EST_HUMAN | wf25h04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2356663 3' similar to TR:O54923 O54923 RSEC15. ; |
| 6586 | 18781 | 31826 | 1.3 | 7.0E-49 | AL120937.1. | EST_HUMAN | DKFZp762C033_s1 762 (synonym: hmel2) Homo sapiens cDNA clone DKFZp762C033 3' |
| 5926 | 18771 | 31815 | 0.79 | 7.0E-49 | AI807191.1 | EST_HUMAN | wf25h04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2356663 3' similar to TR:O54923 O54923 RSEC15. ; |
| 202 | 13425 | 26456 | 20.33 | 6.0E-49 | AW731740.1 | EST_HUMAN | ba55g05.x1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2900504 3' similar to gb:X17206 40S RIBOSOMAL PROTEIN S4 (HUMAN); gb:M20632 Mouse LLRep3 protein mRNA from a repetitive element, complete (MOUSE); |
| 4231 | 17378 | 30367 | 0.64 | 6.0E-49 | AL162091.1 | EST_HUMAN | DKFZp761A138_s1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761A138 3' |
| 5954 | 19140 | 32456 | 0.64 | 6.0E-49 | AW511225.1 | EST_HUMAN | hd44e02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2912378 3' similar to TR:O95636 O95636 CAMP-REGULATED GUANINE NUCLEOTIDE EXCHANGE FACTOR II. ; |
| 6572 | 19734 | 33113 | 1.27 | 6.0E-49 | AU140742.1 | EST_HUMAN | AU140742 PLACE4 Homo sapiens cDNA clone PLACE4000148 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11557 | 24612 | 38291 | 3.39 | 6.0E-49 | AW452218.1 | EST_HUMAN | UI-H-BI3-alo-a-05-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:3068048 3' |
| 11961 | 24946 | 38650 | 2.48 | 6.0E-49 | AA366556.1 | EST_HUMAN | EST77525 Pancreas tumor III Homo sapiens cDNA 5' end |
| 11961 | 24946 | 38651 | 2.48 | 6.0E-49 | AA366556.1 | EST_HUMAN | EST77525 Pancreas tumor III Homo sapiens cDNA 5' end |
| 12670 | 25897 | | 10.54 | 6.0E-49 | AA707567.1 | EST_HUMAN | zj29c08.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:451694 3' |
| 730 | 13912 | 26951 | 5.84 | 5.0E-49 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 730 | 13912 | 26952 | 5.84 | 5.0E-49 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 1836 | 14983 | 28082 | 10.18 | 6.0E-49 | AA172121.1 | EST_HUMAN | zp29c07.r1 Stratagene neuroepithelium (#937231) Homo sapiens cDNA clone IMAGE:610860 5' similar to TR:G233226 G233226 RTVL-H PROTEIN. ;contains LTR7.t3 LTR7 LTR7 repetitive element ; |
| 2808 | 15922 | 29032 | 7.1 | 5.0E-49 | U17714.1 | NT | Homo sapiens putative tumor suppressor ST13 (ST13) mRNA, complete cds |
| 3346 | 16519 | 29533 | 7.59 | 5.0E-49 | 11436355 | NT | Homo sapiens similar to ribosomal protein S27 (metallopanstimulin 1) (H. sapiens) (LOC63362), mRNA |
| 538 | 13731 | 26754 | 28.39 | 4.0E-49 | AW189533.1 | EST_HUMAN | xl08b01.x1 NCI_CGAP_Ut4 Homo sapiens cDNA clone IMAGE:2676593 3' similar to WP:B0350.2B CE06703 ; |
| 7395 | 20473 | 33939 | 0.96 | 4.0E-49 | Z26634.2 | NT | Homo sapiens mRNA for ankyrin B (440 kDa) |
| 7395 | 20473 | 33940 | 0.96 | 4.0E-49 | Z26634.2 | NT | Homo sapiens mRNA for ankyrin B (440 kDa) |
| 7422 | 20499 | 33970 | 0.68 | 4.0E-49 | 11525737 | NT | Homo sapiens UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 8 (GalNAc-T8) (GALNT8), mRNA |
| 7422 | 20499 | 33971 | 0.68 | 4.0E-49 | 11525737 | NT | Homo sapiens UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 8 (GalNAc-T8) (GALNT8), mRNA |
| 7992 | 21042 | 34554 | 0.69 | 4.0E-49 | 7662209 | NT | Homo sapiens KIAA0623 gene product (KIAA0623), mRNA |
| 9065 | 22144 | 35690 | 0.47 | 4.0E-49 | 11425374 | NT | Homo sapiens copine III (CPNE3), mRNA |
| 9065 | 22144 | 35691 | 0.47 | 4.0E-49 | 11425374 | NT | Homo sapiens copine III (CPNE3), mRNA |
| 12514 | 26145 | | 2.74 | 4.0E-49 | AA210798.1 | EST_HUMAN | zr90f05.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:682977 5' |
| 12615 | 25413 | | 2.93 | 4.0E-49 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 574 | 13766 | 26789 | 0.91 | 3.0E-49 | X68968.1 | NT | H.sapiens mRNA for acetyl-CoA carboxylase |
| 2713 | 15831 | | 2.73 | 3.0E-49 | AA016131.1 | EST_HUMAN | ze31c05.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:360584 5' similar to contains L1.t3 L1 repetitive element ; |
| 5098 | 18226 | 31198 | 2.68 | 3.0E-49 | U46999.1 | NT | Human type IV collagen (COL4A6) gene, exon 40 |
| 7577 | 20649 | 34127 | 9.83 | 3.0E-49 | H39479.1 | EST_HUMAN | EST25e12 WATM1 Homo sapiens cDNA clone 25e12 |
| 11582 | 24636 | 38316 | 1.41 | 3.0E-49 | AA337561.1 | EST_HUMAN | EST42572 Endometrial tumor Homo sapiens cDNA 5' end |
| 678 | 13864 | | 1.93 | 2.0E-49 | BE165980.1 | EST_HUMAN | MR3-HT0487-150200-113-g01 HT0487 Homo sapiens cDNA |
| 3294 | 16468 | 29487 | 1.15 | 2.0E-49 | N26446.1 | EST_HUMAN | yx23d06.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:262571 5' |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3659 | 16822 | 29832 | 0.86 | 2.0E-49 | AF026564.1 | NT | Homo sapiens RNA binding protein II (RBMII) gene, complete cds |
| 6875 | 20027 | 33437 | 1.2 | 2.0E-49 | AV717938.1 | EST_HUMAN | AV717938 DCB Homo sapiens cDNA clone DCBALB01 5' |
| 8291 | 21373 |  | 1.87 | 2.0E-49 | M86033.1 | EST_HUMAN | EST02558 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBCY50 |
| 12626 | 26008 |  | 2.69 | 2.0E-49 | AF163864.1 | NT | Homo sapiens SNCA isoform (SNCA) gene, complete cds, alternatively spliced |
| 922 | 14097 |  | 9.1 | 1.0E-49 | BF035327.1 | EST_HUMAN | 601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 1584 | 14736 | 27816 | 73.58 | 1.0E-49 | 4557887 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 1844 | 14990 | 28091 | 2.93 | 1.0E-49 | BE255216.1 | EST_HUMAN | 601115769F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3356273 5' |
| 5475 | 18674 | 31688 | 4.68 | 1.0E-49 | BF131007.1 | EST_HUMAN | 601820053F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:4052052 5' |
| 6202 | 19377 | 32728 | 0.85 | 1.0E-49 | H16291.1 | EST_HUMAN | yn48h04.r1 Soares adult brain N2b5HB55Y Homo sapiens cDNA clone IMAGE:171703 5' similar to SP:GBG1_HUMAN Q08447 GUANINE NUCLEOTIDE-BINDING PROTEIN G(T) GAMMA-1 SUBUNIT ; |
| 6208 | 19383 | 32733 | 1.09 | 1.0E-49 | AW964640.1 | EST_HUMAN | EST376713 MAGE resequences, MAGH Homo sapiens cDNA |
| 7372 | 20451 | 33915 | 2.78 | 1.0E-49 | BE398110.1 | EST_HUMAN | 601290330F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3620863 5' |
| 7372 | 20451 | 33916 | 2.78 | 1.0E-49 | BE398110.1 | EST_HUMAN | 601290330F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3620863 5' |
| 7453 | 20530 | 34003 | 2.09 | 1.0E-49 | N25884.1 | EST_HUMAN | yw78g12.s1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:258406 3' similar to gb:X65873 KINESIN HEAVY CHAIN (HUMAN); |
| 7453 | 20530 | 34004 | 2.09 | 1.0E-49 | N25884.1 | EST_HUMAN | yw78g12.s1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:258406 3' similar to gb:X65873 KINESIN HEAVY CHAIN (HUMAN); |
| 8874 | 21953 |  | 0.71 | 1.0E-49 | 9994184 | NT | Homo sapiens RNA binding motif protein 7 (LOC51120), mRNA |
| 9193 | 22271 | 35809 | 1.48 | 1.0E-49 | BE409340.1 | EST_HUMAN | 601300992F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3635398 5' |
| 10331 | 23366 | 36975 | 1.23 | 1.0E-49 | AL043129.2 | EST_HUMAN | DKFZp434D2423_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434D2423 5' |
| 11304 | 24369 | 38010 | 1.32 | 1.0E-49 | AV751477.1 | EST_HUMAN | AV751477 NPD Homo sapiens cDNA clone NPDAWE04 5' |
| 11590 | 24643 | 38325 | 2.91 | 1.0E-49 | 11427366 | NT | Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 1 (BIG1), mRNA |
| 12148 | 25119 |  | 1.26 | 1.0E-49 | BE159343.1 | EST_HUMAN | MR0-HT0407-010200-006-f02 HT0407 Homo sapiens cDNA |
| 12508 | 25349 |  | 1.82 | 1.0E-49 | 11418322 | NT | Homo sapiens cadherin EGF LAG seven-pass G-type receptor 1 (CELSR1), mRNA |
| 5109 | 18237 |  | 0.92 | 9.0E-50 | AF101475.1 | NT | Homo sapiens glycine N-methyltransferase (GNMT) gene, complete cds |
| 6534 | 26215 |  | 0.63 | 9.0E-50 | BE295758.1 | EST_HUMAN | 601176250F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531588 5' |
| 174 | 13398 | 26426 | 4.18 | 8.0E-50 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 737 | 13919 | 26959 | 1.92 | 8.0E-50 | X95097.2 | NT | Homo sapiens mRNA for VIP receptor 2 |
| 737 | 13919 | 26960 | 1.92 | 8.0E-50 | X95097.2 | NT | Homo sapiens mRNA for VIP receptor 2 |
| 1803 | 14952 | 28046 | 4.32 | 8.0E-50 | 4501890 | NT | Homo sapiens actinin, alpha 1 (ACTN1) mRNA |
| 2552 | 15677 | 28800 | 1.05 | 8.0E-50 | 7706394 | NT | Homo sapiens p47 (LOC51674), mRNA |
| 2552 | 15677 | 28801 | 1.05 | 8.0E-50 | 7706394 | NT | Homo sapiens p47 (LOC51674), mRNA |
| 2764 | 15879 | 28988 | 2.42 | 8.0E-50 | 4826658 | NT | Homo sapiens capping protein (actin filament) muscle Z-line, beta (CAPZB), mRNA |
| 2891 | 15160 |  | 2.67 | 8.0E-50 | D90334.1 | NT | Homo sapiens hepatocyte growth factor(HGF) gene, exon 18 |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 634 | 13819 | 26843 | 1.07 | 7.0E-50 | BE089591.1 | EST_HUMAN | QV0-BT0703-280400-211-e08 BT0703 Homo sapiens cDNA |
| 6923 | 20238 | 33672 | 0.73 | 7.0E-50 | BF091922.1 | EST_HUMAN | RC6-TN0073-150900-011-A12 TN0073 Homo sapiens cDNA |
| 6923 | 20238 | 33673 | 0.73 | 7.0E-50 | BF091922.1 | EST_HUMAN | RC6-TN0073-150900-011-A12 TN0073 Homo sapiens cDNA |
| 7457 | 20533 | 34008 | 0.74 | 7.0E-50 | AA627822.1 | EST_HUMAN | nq59e12.s1 NCI_CGAP_Co9 Homo sapiens cDNA clone IMAGE:1148206 3' similar to gb:X69391 60S RIBOSOMAL PROTEIN L6 (HUMAN); |
| 10993 | 24072 | 37705 | 23.18 | 7.0E-50 | AI872137.1 | EST_HUMAN | wm55g11.x1 NCI_CGAP_Ut2 Homo sapiens cDNA clone IMAGE:2439908 3' |
| 4462 | 17602 |  | 0.67 | 6.0E-50 | BE794381.1 | EST_HUMAN | 601589565F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943577 5' |
| 8408 | 21489 |  | 3.28 | 6.0E-50 | BE044076.1 | EST_HUMAN | ho36h04.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:3039511 3' similar to contains MER29.b3 MER29 repetitive element ; |
| 11053 | 24130 | 37765 | 3.32 | 6.0E-50 | AA312079.1 | EST_HUMAN | EST182775 Jurkat T-cells VI Homo sapiens cDNA 5' end |
| 11053 | 24130 | 37766 | 3.32 | 6.0E-50 | AA312079.1 | EST_HUMAN | EST182775 Jurkat T-cells VI Homo sapiens cDNA 5' end |
| 1835 | 14982 | 28080 | 1.34 | 5.0E-50 | BF332938.1 | EST_HUMAN | CM0-BT0792-300500-398-b05 BT0792 Homo sapiens cDNA |
| 1835 | 14982 | 28081 | 1.34 | 5.0E-50 | BF332938.1 | EST_HUMAN | CM0-BT0792-300500-398-b05 BT0792 Homo sapiens cDNA |
| 9294 | 22370 |  | 5.27 | 5.0E-50 | AA557683.1 | EST_HUMAN | nl45h10.s1 NCI_CGAP_Pr4 Homo sapiens cDNA clone IMAGE:1043683 similar to contains PTR5.t3 PTR5 repetitive element ; |
| 12090 | 25070 | 38777 | 1.78 | 5.0E-50 | AA403053.1 | EST_HUMAN | zt62b01.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:726889 5' similar to TR:G1335769 G1335769 GAG-POL POLYPROTEIN. ; |
| 940 | 14114 |  | 2.31 | 4.0E-50 | AA601143.1 | EST_HUMAN | no54e09.s1 NCI_CGAP_SS1 Homo sapiens cDNA clone IMAGE:1104620 3' similar to gb:X53741_rna1 FIBULIN-1, ISOFORM A PRECURSOR (HUMAN); |
| 3536 | 16701 | 29712 | 2.06 | 4.0E-50 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 6491 | 19657 | 33020 | 0.92 | 4.0E-50 | 11440083 | NT | Homo sapiens cysteinyl-tRNA synthetase (CARS), mRNA |
| 7383 | 20461 | 33924 | 1.02 | 4.0E-50 | BE087536.1 | EST_HUMAN | QV1-BT0681-280300-127-f12 BT0681 Homo sapiens cDNA |
| 1992 | 16134 |  | 9.4 | 3.0E-50 | M18048.1 | NT | Human endogenous retrovirus RTVL-H2 |
| 3371 | 16543 | 29557 | 0.92 | 3.0E-50 | AA746142.1 | EST_HUMAN | ob03f06.s1 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1322627 3' |
| 3846 | 17006 | 30008 | 0.9 | 3.0E-50 | AW755254.1 | EST_HUMAN | CMYA5 Human cardiac muscle expression library Homo sapiens cDNA clone 4151935 similar to CMYA5 Cardiomyopathy associated gene 5 |
| 6815 | 19968 | 33374 | 0.99 | 3.0E-50 | 11419317 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type 12 (PTPN12), mRNA |
| 6815 | 19968 | 33375 | 0.99 | 3.0E-50 | 11419317 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type 12 (PTPN12), mRNA |
| 6904 | 20219 | 33648 | 1.71 | 3.0E-50 | 11421514 | NT | Homo sapiens similar to sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3A (H. sapiens) (LOC63232), mRNA |
| 7822 | 20877 | 34376 | 5 | 3.0E-50 | AF233436.2 | NT | Homo sapiens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP1a mRNA, complete cds |
| 7822 | 20877 | 34377 | 5 | 3.0E-50 | AF233436.2 | NT | Homo sapiens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP1a mRNA, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8782 | 21861 | 35404 | 0.66 | 3.0E-50 | 6601589 | NT | Homo sapiens ankyrin-like with transmembrane domains 1 (ANKTM1), mRNA |
| 10023 | 23061 | 36657 | 1.08 | 3.0E-50 | AB046818.1 | NT | Homo sapiens mRNA for KIAA1598 protein, partial cds |
| 10032 | 23070 | 36670 | 1.03 | 3.0E-50 | 11418514 | NT | Homo sapiens t-complex 10 (a murine tcp homolog) (TCP10), mRNA |
| 10737 | 23770 | 37380 | 1.04 | 3.0E-50 | AB002297.1 | NT | Human mRNA for KIAA0299 gene, partial cds |
| 11364 | 24425 | 38080 | 1.51 | 3.0E-50 | 11436955 | NT | Homo sapiens Grb2-associated binder 2 (KIAA0571), mRNA |
| 11752 | 23938 | 37564 | 8.19 | 3.0E-50 | AJ245621.1 | NT | Homo sapiens CTL2 gene |
| 13217 | 25792 | 31922 | 1.35 | 3.0E-50 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 799 | 13978 |  | 7.94 | 2.0E-50 | AF055066.1 | NT | Homo sapiens MHC class 1 region |
| 1104 | 14269 | 27327 | 6.16 | 2.0E-50 | 4557752 | NT | Homo sapiens midline 1 (Opitz/BBB syndrome) (MID1) mRNA |
| 1474 | 14627 | 27713 | 33.77 | 2.0E-50 | AF138303.1 | NT | Homo sapiens decorin D mRNA, complete cds, alternatively spliced |
| 4376 | 17519 | 30499 | 0.75 | 2.0E-50 | D86424.1 | NT | Mus musculus mRNA for high-sulfur keratin protein, partial cds |
| 5329 | 18442 | 31412 | 1.37 | 2.0E-50 | AB018319.1 | NT | Homo sapiens mRNA for KIAA0776 protein, partial cds |
| 7007 | 20143 | 33562 | 0.61 | 2.0E-50 | AU124065.1 | EST_HUMAN | AU124065 NT2RM2 Homo sapiens cDNA clone NT2RM2001609 5' |
| 8511 | 21592 | 35126 | 1.03 | 2.0E-50 | AB038162.1 | NT | Homo sapiens TFF gene cluster for trefoil factor, complete cds |
| 8511 | 21592 | 35127 | 1.03 | 2.0E-50 | AB038162.1 | NT | Homo sapiens TFF gene cluster for trefoil factor, complete cds |
| 8650 | 21730 | 35268 | 7.21 | 2.0E-50 | X06956.1 | NT | Human HALPHA44 gene for alpha-tubulin, exons 1-3 |
| 8650 | 21730 | 35269 | 7.21 | 2.0E-50 | X06956.1 | NT | Human HALPHA44 gene for alpha-tubulin, exons 1-3 |
| 10088 | 23126 | 36728 | 1.6 | 2.0E-50 | 9910293 | NT | Mus musculus keratin complex 2, gene 6g (Krt2-6g), mRNA |
| 10088 | 23126 | 36729 | 1.6 | 2.0E-50 | 9910293 | NT | Mus musculus keratin complex 2, gene 6g (Krt2-6g), mRNA |
| 11960 | 24945 |  | 1.39 | 2.0E-50 | AF023861.1 | NT | Macaca mulatta cyclophilin A mRNA, complete cds |
| 474 | 13669 | 26701 | 2.17 | 1.0E-50 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 2438 | 15566 |  | 10.11 | 1.0E-50 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 10396 | 23431 | 37038 | 1.65 | 1.0E-50 | D11078.1 | NT | Homo sapiens RGH2 gene, retrovirus-like element |
| 6104 | 19284 | 32617 | 1.04 | 9.0E-51 | AW511225.1 | EST_HUMAN | hd44e02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2912378 3' similar to TR:O95636 O95636 CAMP-REGULATED GUANINE NUCLEOTIDE EXCHANGE FACTOR II. ; |
| 6354 | 19524 | 32881 | 0.58 | 9.0E-51 | AA744837.1 | EST_HUMAN | ny67h03.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1283381 3' |
| 8872 | 21951 | 35487 | 0.7 | 9.0E-51 | AI791154.1 | EST_HUMAN | ab23g04.x5 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:841686 3' similar to SW:PSM_HUMAN Q04609 PROSTATE-SPECIFIC MEMBRANE ANTIGEN ; |
| 9525 | 22590 | 36161 | 1.29 | 9.0E-51 | AA043738.1 | EST_HUMAN | zk51c09.r1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:486352 5' |
| 9700 | 22749 | 36317 | 0.68 | 9.0E-51 | AI791154.1 | EST_HUMAN | ab23g04.x5 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:841686 3' similar to SW:PSM_HUMAN Q04609 PROSTATE-SPECIFIC MEMBRANE ANTIGEN ; |
| 9700 | 22749 | 36318 | 0.68 | 9.0E-51 | AI791154.1 | EST_HUMAN | ab23g04.x5 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:841686 3' similar to SW:PSM_HUMAN Q04609 PROSTATE-SPECIFIC MEMBRANE ANTIGEN ; |
| 11764 | 23950 | 37679 | 1.97 | 9.0E-51 | H89078.1 | EST_HUMAN | yw24g06.r1 Morton Fetal Cochlea Homo sapiens cDNA clone IMAGE:253210 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11764 | 23950 | 37580 | 1.97 | 9.0E-51 | H89078.1 | EST_HUMAN | yw24g06.r1 Morton Fetal Cochlea Homo sapiens cDNA clone IMAGE:253210 5' |
| 12069 | 25050 | 38768 | 1.84 | 9.0E-51 | AA885514.1 | EST_HUMAN | am10h02.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1466451 3' similar to SW:CAYP_CANFA P10463 CALCYPHOSINE ; |
| 4559 | 17697 | 30677 | 1.11 | 8.0E-51 | 4503932 | NT | Homo sapiens glycine amidinotransferase (L-arginine:glycine amidinotransferase) (GATM) mRNA |
| 4559 | 17697 | 30678 | 1.11 | 8.0E-51 | 4503932 | NT | Homo sapiens glycine amidinotransferase (L-arginine:glycine amidinotransferase) (GATM) mRNA |
| 4690 | 17825 | 30812 | 5.38 | 8.0E-51 | AA610842.1 | EST_HUMAN | np98e09.s1 NCI_CGAP_Lu1 Homo sapiens cDNA clone IMAGE:1142440 3' similar to gb:X12671_rna1 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN A1 (HUMAN); |
| 7321 | 20403 | 33865 | 0.71 | 8.0E-51 | AF064254.1 | NT | Homo sapiens very long-chain acyl-CoA synthetase homolog 1 mRNA, complete cds |
| 7830 | 20885 | 34387 | 2.11 | 8.0E-51 | 11439587 | NT | Homo sapiens PDZ-73 protein (PDZ-73/NY-CO-38), mRNA |
| 9664 | 22626 |  | 1.05 | 8.0E-51 | AU138590.1 | EST_HUMAN | AU138590 PLACE1 Homo sapiens cDNA clone PLACE1008887 5' |
| 3354 | 16526 | 29541 | 1.27 | 7.0E-51 | AW889219.1 | EST_HUMAN | QV4-NT0028-200400-180-d05 NT0028 Homo sapiens cDNA |
| 3447 | 16615 | 29633 | 0.82 | 7.0E-51 | AW274720.1 | EST_HUMAN | xn34a03.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2695564 3' similar to TR:Q9Z340 Q9Z340 ATYPICAL PKC SPECIFIC BINDING PROTEIN. ; |
| 4282 | 17427 | 30416 | 1.37 | 7.0E-51 | AL079628.1 | EST_HUMAN | DKFZp434B2229_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434B2229 5' |
| 4282 | 17427 | 30417 | 1.37 | 7.0E-51 | AL079628.1 | EST_HUMAN | DKFZp434B2229_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434B2229 5' |
| 4375 | 17518 | 30498 | 1.18 | 7.0E-51 | 11421595 | NT | Homo sapiens immunoglobulin superfamily, member 3 (IGSF3), mRNA |
| 4471 | 17611 | 30589 | 1.44 | 7.0E-51 | AW295803.1 | EST_HUMAN | UI-H-BW0-aip-b-05-0-UI.s1 NCI_CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2729817 3' |
| 11985 | 24970 | 38674 | 1.36 | 7.0E-51 | AF161449.1 | NT | Homo sapiens HSPC331 mRNA, partial cds |
| 1557 | 14710 | 27790 | 0.94 | 6.0E-51 | 6678763 | NT | Homo sapiens putative DNA binding protein (M96), mRNA |
| 2036 | 15177 | 28287 | 5.93 | 6.0E-51 | 7657266 | NT | Homo sapiens KIAA0929 protein Msx2 interacting nuclear target (MINT) homolog (KIAA0929), mRNA |
| 3562 | 16727 | 29743 | 14.65 | 6.0E-51 | 7657266 | NT | Homo sapiens KIAA0929 protein Msx2 interacting nuclear target (MINT) homolog (KIAA0929), mRNA |
| 4426 | 17566 | 30547 | 0.66 | 6.0E-51 | 9910553 | NT | Homo sapiens solute carrier family 2 (facilitated glucose transporter), member 9 (SLC2A9), mRNA |
| 4426 | 17566 | 30548 | 0.66 | 6.0E-51 | 9910553 | NT | Homo sapiens solute carrier family 2 (facilitated glucose transporter), member 9 (SLC2A9), mRNA |
| 6113 | 19293 | 32628 | 1.48 | 6.0E-51 | X01788.1 | NT | Human haptoglobin related (Hpr) gene exon 3 |
| 6124 | 19303 | 32642 | 8.16 | 6.0E-51 | AF070083.1 | NT | Homo sapiens mitogen-activated protein kinase kinase 1 (MKK4) gene, exon 4 |
| 6124 | 19303 | 32643 | 8.16 | 6.0E-51 | AF070083.1 | NT | Homo sapiens mitogen-activated protein kinase kinase 1 (MKK4) gene, exon 4 |
| 6900 | 20215 | 33645 | 0.93 | 6.0E-51 | 4506736 | NT | Homo sapiens ribosomal protein S6 kinase, 70kD, polypeptide 1 (RPS6KB1) mRNA |
| 7032 | 20168 | 33590 | 0.82 | 6.0E-51 | 11416751 | NT | Homo sapiens non-kinase Cdc42 effector protein SPEC2 (LOC56990), mRNA |
| 7104 | 18531 | 31486 | 2.15 | 6.0E-51 | 11429665 | NT | Homo sapiens cerebral cell adhesion molecule (LOC51148), mRNA |
| 9337 | 22413 | 35965 | 0.69 | 6.0E-51 | 11428525 | NT | Homo sapiens hypothetical protein FLJ11042 (FLJ11042), mRNA |
| 9337 | 22413 | 35966 | 0.69 | 6.0E-51 | 11428525 | NT | Homo sapiens hypothetical protein FLJ11042 (FLJ11042), mRNA |
| 9885 | 22926 | 36509 | 2.05 | 6.0E-51 | 7661636 | NT | Homo sapiens B9 protein (B9), mRNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9964 | 23003 | 36598 | 0.79 | 6.0E-51 | U50093.1 | NT | Human ankyrin (ANK1) gene, exon 2 |
| 11534 | 24590 | 38265 | 1.84 | 6.0E-51 | 11526289 | NT | Homo sapiens interleukin 17 receptor (IL17R), mRNA |
| 814 | 13993 | 27047 | 6.22 | 5.0E-51 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 826 | 14004 | 27061 | 1.71 | 5.0E-51 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 1015 | 16028 | 27247 | 2.39 | 5.0E-51 | AL133204.1 | NT | Novel human gene mapping to chomosome X |
| 1638 | 14790 | 27875 | 1.14 | 5.0E-51 | 5031980 | NT | Homo sapiens 26S proteasome-associated pad1 homolog (POH1) mRNA |
| 2658 | 15781 | 28894 | 10.36 | 5.0E-51 | AJ007558.1 | NT | Homo sapiens mRNA for nucleoporin 155 |
| 4055 | 17211 | 30221 | 1.31 | 5.0E-51 | M30938.1 | NT | Human Ku (p70/p80) subunit mRNA, complete cds |
| 4055 | 17211 | 30222 | 1.31 | 5.0E-51 | M30938.1 | NT | Human Ku (p70/p80) subunit mRNA, complete cds |
| 5183 | 18305 | 31269 | 1.04 | 5.0E-51 | AB037832.1 | NT | Homo sapiens mRNA for KIAA1411 protein, partial cds |
| 11558 | 24613 | 38292 | 3.8 | 5.0E-51 | 5803136 | NT | Homo sapiens RNA binding motif protein 3 (RBM3), mRNA |
| 137 | 13363 | 26397 | 14.25 | 3.0E-51 | AI587348.1 | EST_HUMAN | tr81c09.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2224720 3' similar to gb:M26326 KERATIN, TYPE I CYTOSKELETAL 18 (HUMAN); |
| 1203 | 14365 | 27425 | 48.14 | 3.0E-51 | AI587348.1 | EST_HUMAN | tr81c09.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2224720 3' similar to gb:M26326 KERATIN, TYPE I CYTOSKELETAL 18 (HUMAN); |
| 1976 | 15119 | 28220 | 1.38 | 3.0E-51 | AA211296.1 | EST_HUMAN | zq87g01.s1 Stratagene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:648008 3' |
| 4446 | 17586 | 30567 | 1.85 | 3.0E-51 | AL159142.1 | NT | Novel human gene mapping to chomosome 22 |
| 7753 | 20813 | 34304 | 2.3 | 3.0E-51 | R15914.1 | EST_HUMAN | ya47c08.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:53233 5' similar to gb:M14123_cds4 RETROVIRUS-RELATED POL POLYPROTEIN (HUMAN);contains LTR5 repetitive element ; |
| 9040 | 22119 |  | 3.85 | 3.0E-51 | M29063.1 | NT | Human hnRNP C2 protein mRNA |
| 9268 | 26227 |  | 0.61 | 3.0E-51 | AW583777.1 | EST_HUMAN | ia04d06.y1 Human Pancreatic Islets Homo sapiens cDNA 5' |
| 12867 | 25578 |  | 6.56 | 3.0E-51 | AF003528.1 | NT | Homo sapiens X-linked anhidroitic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 377 | 13585 | 26619 | 1.98 | 2.0E-51 | 4507798 | NT | Homo sapiens ubiquitin protein ligase E3A (human papilloma virus E6-associated protein, Angelman syndrome) (UBE3A) mRNA |
| 706 | 13889 | 26921 | 0.89 | 2.0E-51 | BE391063.1 | EST_HUMAN | 601285694F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3607463 5' |
| 706 | 13889 | 26922 | 0.89 | 2.0E-51 | BE391063.1 | EST_HUMAN | 601285694F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3607463 5' |
| 1723 | 14873 | 27965 | 16.75 | 2.0E-51 | AA233352.1 | EST_HUMAN | zr30a05.r1 Stratagene NT2 neuronal precursor 937230 Homo sapiens cDNA clone IMAGE:664880 5' similar to TR:G233226 G233226 RTVL-H PROTEIN. ;contains LTR7.t3 LTR7 repetitive element ; |
| 3827 | 16987 | 29990 | 3.05 | 2.0E-51 | AI492415.1 | EST_HUMAN | ti27g03.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2131732 3' |
| 4616 | 17753 | 30734 | 1.21 | 2.0E-51 | AW137826.1 | EST_HUMAN | UI-H-BI1-adj-d-02-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2716851 3' |
| 5326 | 18439 | 31408 | 0.66 | 2.0E-51 | AI381520.1 | EST_HUMAN | te76c08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2092622 3' similar to TR:P93107 P93107 PF20. ; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6139 | 19317 | 32658 | 3.54 | 2.0E-51 | BE782015.1 | EST_HUMAN | 601470446F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3873563 5' |
| 7462 | 20537 | | 0.73 | 2.0E-51 | AF219927.1 | NT | Homo sapiens diacylglycerol kinase iota (DGKI) gene, exon 23 |
| 7615 | 20685 | 34161 | 1.29 | 2.0E-51 | 7662349 | NT | Homo sapiens cell recognition molecule Caspr2 (KIAA0868), mRNA |
| 8896 | 21975 | 35512 | 1.61 | 2.0E-51 | BE901994.1 | EST_HUMAN | 601676787F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3959613 5' |
| 8896 | 21975 | 35513 | 1.61 | 2.0E-51 | BE901994.1 | EST_HUMAN | 601676787F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3959613 5' |
| 9235 | 22312 | 35854 | 1.03 | 2.0E-51 | 11037064 | NT | Homo sapiens disrupted in schizophrenia 1 (DISC1), mRNA |
| 9712 | 22777 | 36347 | 1.76 | 2.0E-51 | AI917078.1 | EST_HUMAN | ts74a07.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2236980 3' similar to SW:TRKC_HUMAN Q16288 NT-3 GROWTH FACTOR RECEPTOR PRECURSOR ; |
| 9803 | 22843 | 36420 | 4.86 | 2.0E-51 | BE165980.1 | EST_HUMAN | MR3-HT0487-150200-113-g01 HT0487 Homo sapiens cDNA |
| 9818 | 22858 | 36438 | 0.69 | 2.0E-51 | AB007926.1 | NT | Homo sapiens mRNA for KIAA0457 protein, partial cds |
| 10648 | 23682 | 37293 | 1.58 | 2.0E-51 | AV682474.1 | EST_HUMAN | AV682474 GKB Homo sapiens cDNA clone GKBAGF05 5' |
| 10690 | 23723 | 37329 | 1.07 | 2.0E-51 | AA378559.1 | EST_HUMAN | EST91296 Synovial sarcoma Homo sapiens cDNA 5' end |
| 11610 | 18752 | 31789 | 5.82 | 2.0E-51 | AI732851.1 | EST_HUMAN | ob34f09.x5 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1325609 3' similar to SW:NME1_MOUSE P35436 GLUTAMATE [NMDA] RECEPTOR SUBUNIT EPSILON 1 PRECURSOR ; |
| 11610 | 18752 | 31790 | 5.82 | 2.0E-51 | AI732851.1 | EST_HUMAN | ob34f09.x5 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1325609 3' similar to SW:NME1_MOUSE P35436 GLUTAMATE [NMDA] RECEPTOR SUBUNIT EPSILON 1 PRECURSOR ; |
| 12860 | 25571 | 31992 | 1.62 | 2.0E-51 | 11419159 | NT | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (*trithorax* (*Drosophila*) homolog); translocated to, 4 (MLLT4), mRNA |
| 117 | 13348 | 26375 | 10.94 | 1.0E-51 | 4503528 | NT | Homo sapiens eukaryotic translation initiation factor 4A, isoform 1 (EIF4A1) mRNA |
| 1523 | 14676 | | 37.16 | 1.0E-51 | AV742248.1 | EST_HUMAN | AV742248 CB Homo sapiens cDNA clone CBFBCC12 5' |
| 4918 | 18048 | 31036 | 0.82 | 1.0E-51 | AF111168.2 | NT | Homo sapiens serine palmitoyl transferase, subunit II gene, complete cds; and unknown genes |
| 5505 | 18704 | 31720 | 3.7 | 1.0E-51 | T18862.1 | EST_HUMAN | b12056t Testis 1 Homo sapiens cDNA clone b12056 |
| 7827 | 20882 | 34384 | 1.03 | 1.0E-51 | AI572532.1 | EST_HUMAN | tе39g02.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:2089106 3' |
| 8087 | 21169 | 34684 | 0.51 | 1.0E-51 | BF434359.1 | EST_HUMAN | 7o96b02.x1 NCI_CGAP_Ov18 Homo sapiens cDNA clone IMAGE:3644091 3' similar to TR:P87892 P87892 PROTEASE ; |
| 12076 | 26232 | | 1.97 | 1.0E-51 | AV760590.1 | EST_HUMAN | AV760590 MDS Homo sapiens cDNA clone MDSCBB02 5' |
| 12610 | 25409 | | 9.43 | 9.0E-52 | AA777621.1 | EST_HUMAN | zi95a07.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:448500 3' similar to contains THR.t3 THR repetitive element ; |
| 156 | 13381 | 26412 | 11.42 | 8.0E-52 | AA720574.1 | EST_HUMAN | nw21g02.s1 NCI_CGAP_GCB0 Homo sapiens cDNA clone IMAGE:1241138 3' similar to contains THR.t3 THR repetitive element ; |
| 1626 | 14679 | 27760 | 2.39 | 8.0E-52 | X84900.1 | NT | H.sapiens mRNA for laminin-5, alpha3b chain |
| 1686 | 14838 | 27922 | 2.85 | 8.0E-52 | 11968028 | NT | Homo sapiens hypothetical *protein* FLJ13556 similar to N-myc downstream regulated 3 (FLJ13556), mRNA |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1686 | 14838 | 27923 | 2.85 | 8.0E-52 | 11968028 | NT | Homo sapiens hypothetical protein FLJ13556 similar to N-myc downstream regulated 3 (FLJ13556), mRNA |
| 4101 | 14838 | 27922 | 6.75 | 8.0E-52 | 11968028 | NT | Homo sapiens hypothetical protein FLJ13556 similar to N-myc downstream regulated 3 (FLJ13556), mRNA |
| 4101 | 14838 | 27923 | 6.75 | 8.0E-52 | 11968028 | NT | Homo sapiens hypothetical protein FLJ13556 similar to N-myc downstream regulated 3 (FLJ13556), mRNA |
| 7686 | 20751 | 34232 | 0.76 | 8.0E-52 | 11416585 | NT | Homo sapiens transforming growth factor, beta-induced, 68kD (TGFBI), mRNA |
| 7686 | 20751 | 34233 | 0.76 | 8.0E-52 | 11416585 | NT | Homo sapiens transforming growth factor, beta-induced, 68kD (TGFBI), mRNA |
| 9215 | 22293 | 35836 | 1.86 | 7.0E-52 | W56471.1 | EST_HUMAN | zc59a06.r1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:326578 5' similar to contains Alu repetitive element; |
| 1214 | 14375 |  | 0.63 | 6.0E-52 | BE072409.1 | EST_HUMAN | QV3-BT0537-271299-049-d07 BT0537 Homo sapiens cDNA |
| 1729 | 14879 | 27970 | 7.1 | 6.0E-52 | AF109907.1 | NT | Homo sapiens S164 gene, partial cds; PS1 and hypothetical protein genes, complete cds; and S171 gene, partial cds |
| 5845 | 19035 | 32341 | 1.05 | 6.0E-52 | AI208794.1 | EST_HUMAN | qg44f04.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1838047 3' |
| 11484 | 24543 | 38214 | 2.36 | 6.0E-52 | BE048172.1 | EST_HUMAN | tz46h04.y1 NCI_CGAP_Brn52 Homo sapiens cDNA clone IMAGE:2291671 5' similar to SW:PGBM_MOUSE Q05793 BASEMENT MEMBRANE-SPECIFIC HEPARAN SULFATE PROTEOGLYCAN CORE PROTEIN PRECURSOR ; |
| 4562 | 17700 | 30682 | 2.27 | 6.0E-52 | Z78898.1 | NT | H.sapiens flow-sorted chromosome 6 HindIII fragment, SC6pA18H7 |
| 9592 | 22647 | 36218 | 0.48 | 5.0E-52 | 11437365 | NT | Homo sapiens FSHD region gene 1 (FRG1), mRNA |
| 1695 | 14847 | 27931 | 1.66 | 4.0E-52 | AF257318.1 | NT | Homo sapiens SH3-containing protein SH3GLB1 mRNA, complete cds |
| 1829 | 14977 | 28072 | 1.63 | 4.0E-52 | 4758843 | NT | Homo sapiens nucleoporin 155kD (NUP155) mRNA |
| 4037 | 17193 | 30203 | 0.77 | 4.0E-52 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 4862 | 17995 | 30980 | 0.81 | 4.0E-52 | AI766814.1 | EST_HUMAN | wi89b02.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2400459 3' |
| 5401 | 18603 | 31574 | 1.3 | 4.0E-52 | 4506132 | NT | Homo sapiens phosphoribosyl pyrophosphate synthetase-associated protein 2 (PRPSAP2) mRNA |
| 5401 | 18603 | 31575 | 1.3 | 4.0E-52 | 4506132 | NT | Homo sapiens phosphoribosyl pyrophosphate synthetase-associated protein 2 (PRPSAP2) mRNA |
| 8228 | 21310 | 34830 | 1.19 | 4.0E-52 | BE622032.1 | EST_HUMAN | 601440687F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3915836 5' |
| 8731 | 21811 | 35347 | 5.5 | 4.0E-52 | 11417035 | NT | Homo sapiens hydroxysteroid (17-beta) dehydrogenase 4 (HSD17B4), mRNA |
| 12429 | 25304 |  | 3.44 | 4.0E-52 | 11418177 | NT | Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA |
| 12987 | 25642 |  | 12.79 | 4.0E-52 | AB002059.1 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 13141 | 25741 |  | 1.3 | 4.0E-52 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 4204 | 17353 |  | 11.41 | 3.0E-52 | 11437042 | NT | Homo sapiens hypothetical protein FLJ10675 (FLJ10675), mRNA |
| 576 | 13768 | 26790 | 1.82 | 2.0E-52 | M10976.1 | NT | Human endogenous retroviral DNA (4-1), complete retroviral segment |
| 576 | 13768 | 26791 | 1.82 | 2.0E-52 | M10976.1 | NT | Human endogenous retroviral DNA (4-1), complete retroviral segment |
| 2071 | 15211 | 28328 | 1.18 | 2.0E-52 | AB033075.1 | NT | Homo sapiens mRNA for KIAA1249 protein, partial cds |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2568 | 15693 | 28818 | 1.5 | 2.0E-52 | BE207575.1 | EST_HUMAN | bb66b07.y1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3030421 5' similar to gb:X16493 M.musculus mRNA for Zpf-1 zinc finger protein (MOUSE); |
| 2796 | 15911 | | 11.46 | 2.0E-52 | BF677892.1 | EST_HUMAN | 602084710F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4248891 5' |
| 5092 | 18220 | 31190 | 3.41 | 2.0E-52 | AL137188.3 | NT | Novel human gene mapping to chromosome 20, similar to membrane transporters |
| 5126 | 18251 | 31216 | 1.4 | 2.0E-52 | AI141802.1 | EST_HUMAN | qa56e05.s1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1690784 3' |
| 5126 | 18251 | 31217 | 1.4 | 2.0E-52 | AI141802.1 | EST_HUMAN | qa56e05.s1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1690784 3' |
| 5821 | 19011 | 32317 | 3.24 | 2.0E-52 | AW848041.1 | EST_HUMAN | IL3-CT0214-231299-053-E12 CT0214 Homo sapiens cDNA |
| 6497 | 19663 | 33026 | 1.98 | 2.0E-52 | 11141868 | NT | Homo sapiens interleukin 21 receptor (IL21R), mRNA |
| 6853 | 20006 | 33415 | 0.96 | 2.0E-52 | AB029004.1 | NT | Homo sapiens mRNA for KIAA1081 protein, partial cds |
| 7081 | 20175 | 33597 | 0.76 | 2.0E-52 | AI792146.1 | EST_HUMAN | os45d12.y5 NCI_CGAP_Br2 Homo sapiens cDNA clone IMAGE:1608311 5' |
| 7996 | 21046 | 34558 | 0.69 | 2.0E-52 | 5032158 | NT | Homo sapiens transducin (beta)-like 1 (TBL1) mRNA |
| 7996 | 21046 | 34559 | 0.69 | 2.0E-52 | 5032158 | NT | Homo sapiens transducin (beta)-like 1 (TBL1) mRNA |
| 8854 | 21933 | | 8.71 | 2.0E-52 | AF147880.1 | NT | Macaca mulatta beta-tubulin mRNA, complete cds |
| 9136 | 22215 | 35759 | 0.96 | 2.0E-52 | AA778795.1 | EST_HUMAN | zj45g05.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:453272 3' |
| 9680 | 22642 | | 1 | 2.0E-52 | 4758789 | NT | Homo sapiens NADH dehydrogenase (ubiquinone) Fe-S protein 5 (15kD) (NADH-coenzyme Q reductase) (NDUFS5) mRNA |
| 10321 | 23356 | 36965 | 4.6 | 2.0E-52 | 5730038 | NT | Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA |
| 10321 | 23356 | 36966 | 4.6 | 2.0E-52 | 5730038 | NT | Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA |
| 11481 | 24540 | 38209 | 3.14 | 2.0E-52 | AI831462.1 | EST_HUMAN | wj49c04.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2406150 3' similar to contains THR.b2 THR repetitive element ; |
| 11481 | 24540 | 38210 | 3.14 | 2.0E-52 | AI831462.1 | EST_HUMAN | wj49c04.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2406150 3' similar to contains THR.b2 THR repetitive element ; |
| 11491 | 24550 | 38225 | 2.52 | 2.0E-52 | AV715377.1 | EST_HUMAN | AV715377 DCB Homo sapiens cDNA clone DCBAIE03 5' |
| 11634 | 24714 | | 1.46 | 2.0E-52 | W70260.1 | EST_HUMAN | zd49g12.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:344038 5' |
| 11918 | 24904 | | 3.25 | 2.0E-52 | 11417990 | NT | Homo sapiens LIM domain kinase 2 (LIMK2), mRNA |
| 12234 | 26194 | 31541 | 5.9 | 2.0E-52 | AW236297.1 | EST_HUMAN | xn72e07.x1 NCI_CGAP_CML1 Homo sapiens cDNA clone IMAGE:2700036 3' similar to contains Alu repetitive element;contains element LTR2 repetitive element ; |
| 12658 | 25437 | | 5.72 | 2.0E-52 | AI808985.1 | EST_HUMAN | wf67d05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2360649 3' similar to TR:Q16859 Q16859 CARBOXYLESTERASE ; |
| 546 | 13739 | 26764 | 1.89 | 1.0E-52 | AA634445.1 | EST_HUMAN | zu75h12.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:743879 3' |
| 1402 | 14556 | 27630 | 18.76 | 1.0E-52 | 4504026 | NT | Homo sapiens glutamate-ammonia ligase (glutamine synthase) (GLUL) mRNA |
| 2600 | 15724 | | 1.88 | 1.0E-52 | 4502238 | NT | Homo sapiens arylsulfatase D (ARSD), transcript variant 1, mRNA |
| 3126 | 16302 | 29315 | 2.6 | 1.0E-52 | S61070.1 | NT | pol=reverse transcriptase homolog {retroviral element} [human, endogenous retroviral element RTVL-Hp1, Genomic, 660 nt] |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5448 | 18648 | 31626 | 4.43 | 1.0E-52 | M29426.1 | NT | Human P-glycoprotein (MDR1) gene, exon 4 |
| 6523 | 19688 | 33062 | 2.33 | 1.0E-52 | U38964.1 | NT | Human PMS2 related (hPMSR2) gene, complete cds |
| 7588 | 20659 | 34135 | 2.07 | 1.0E-52 | X07292.1 | NT | Human aldolase C gene for fructose-1,6-bisphosphate aldolase |
| 8014 | 21064 | 34576 | 0.59 | 1.0E-52 | U80017.1 | NT | Homo sapiens basic transcription factor 2 p44 (btf2p44) gene, partial cds, neuronal apoptosis inhibitory protein (naip) and survival motor neuron protein (smn) genes, complete cds |
| 8660 | 21740 | | 1.18 | 1.0E-52 | AL163227.2 | NT | Homo sapiens chromosome 21 segment HS21C027 |
| 9390 | 22465 | 36029 | 0.77 | 1.0E-52 | AF078779.1 | NT | Rattus norvegicus putative four repeat ion channel mRNA, complete cds |
| 10804 | 23837 | | 0.68 | 1.0E-52 | AW020370.1 | EST_HUMAN | df08g05.y1 Morton Fetal Cochlea Homo sapiens cDNA clone IMAGE:2483146 5' |
| 10814 | 23847 | | 1.06 | 1.0E-52 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 11004 | 24083 | 37720 | 2.12 | 1.0E-52 | U48296.1 | NT | Homo sapiens protein tyrosine phosphatase PTPCAAX1 (hPTPCAAX1) mRNA, complete cds |
| 11075 | 24150 | | 1.72 | 1.0E-52 | 11426321 | NT | Homo sapiens proteasome (prosome, macropain) subunit, beta type, 2 (PSMB2), mRNA |
| 12135 | 25115 | 38819 | 1.31 | 1.0E-52 | 11421401 | NT | Homo sapiens 5'-3' exoribonuclease 2 (XRN2), mRNA |
| 12135 | 25115 | 38820 | 1.31 | 1.0E-52 | 11421401 | NT | Homo sapiens 5'-3' exoribonuclease 2 (XRN2), mRNA |
| 3891 | 17050 | 30049 | 0.69 | 9.0E-53 | 4506064 | NT | Homo sapiens protein kinase, cAMP-dependent, regulatory, type II, beta (PRKAR2B) mRNA |
| 4511 | 17650 | 30638 | 3.3 | 9.0E-53 | AF001446.1 | NT | Homo sapiens core binding factor alpha1 subunit (CBFA1) gene, exon 3 |
| 12480 | 25332 | | 6.65 | 7.0E-53 | BF238465.1 | EST_HUMAN | 601904771F1 NIH_MGC_54 Homo sapiens cDNA clone IMAGE:4132793 5' |
| 12958 | 26046 | | 7.06 | 7.0E-53 | AI421782.1 | EST_HUMAN | tf44f07.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2099077 3' similar to contains THR.t1 THR repetitive element ; |
| 4214 | 17363 | 30351 | 4.46 | 5.0E-53 | 4758543 | NT | Homo sapiens heterogeneous nuclear ribonucleoprotein C (C1/C2) (HNRPC) mRNA |
| 5293 | 18411 | 31377 | 0.92 | 5.0E-53 | AL163282.2 | NT | Homo sapiens chromosome 21 segment HS21C082 |
| 12528 | 25360 | | 1.93 | 5.0E-53 | AW813563.1 | EST_HUMAN | RC3-ST0197-151099-011-g10 ST0197 Homo sapiens cDNA |
| 60 | 13289 | 26301 | 2.07 | 4.0E-53 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 50 | 13289 | 26302 | 2.07 | 4.0E-53 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 9616 | 22671 | | 0.67 | 4.0E-53 | AI613037.1 | EST_HUMAN | ty06h04.x1 NCI_CGAP_Ut3 Homo sapiens cDNA clone IMAGE:2278327 3' |
| 9958 | 22997 | | 0.94 | 4.0E-53 | F13080.1 | EST_HUMAN | HSC3ID041 normalized infant brain cDNA Homo sapiens cDNA clone c-3id04 |
| 11489 | 24548 | 38221 | 2.99 | 4.0E-53 | BF128701.1 | EST_HUMAN | 601810969F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4053977 5' |
| 11489 | 24548 | 38222 | 2.99 | 4.0E-53 | BF128701.1 | EST_HUMAN | 601810969F1 NIH_MGC_48 Homo sapiens cDNA clone IMAGE:4053977 5' |
| 2726 | 15844 | 28955 | 2.34 | 3.0E-53 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 3826 | 16985 | 29988 | 1.18 | 3.0E-53 | AW050836.1 | EST_HUMAN | wz22c07.x1 Soares_Dieckgraefe_colon_NHCD Homo sapiens cDNA clone IMAGE:2558796 3' |
| 4713 | 17848 | 30831 | 0.75 | 3.0E-53 | AW803563.1 | EST_HUMAN | IL2-UM0081-240300-055-D03 UM0081 Homo sapiens cDNA |
| 5541 | 18738 | 31755 | 0.97 | 3.0E-53 | AF001212.1 | NT | Homo sapiens 26S proteasome subunit 9 mRNA, complete cds |
| 5743 | 18936 | 32236 | 1.01 | 3.0E-53 | 11526297 | NT | Homo sapiens MIL1 protein (MIL1), mRNA |
| 6323 | 19495 | 32851 | 1.46 | 3.0E-53 | BE160025.1 | EST_HUMAN | QV1-HT0412-280300-123-c04 HT0412 Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7247 | 20330 | 33776 | 0.76 | 3.0E-53 | Y10388.3 | NT | H.sapiens graf gene |
| 7247 | 20330 | 33777 | 0.76 | 3.0E-53 | Y10388.3 | NT | H.sapiens graf gene |
| 8499 | 21580 | 35116 | 10.97 | 3.0E-53 | S72043.1 | NT | GIF=growth inhibitory factor [human, brain, Genomic, 2015 nt] |
| 9060 | 22139 | 35683 | 0.85 | 3.0E-53 | 10835090 | NT | Homo sapiens bone morphogenetic protein 5 (BMP5), mRNA |
| 9257 | 22334 | | 9.77 | 3.0E-53 | 5901953 | NT | Homo sapiens FGFR1 oncogene partner (FOP), mRNA |
| 12361 | 25259 | | 1.18 | 3.0E-53 | 11426423 | NT | Homo sapiens acetyl-Coenzyme A carboxylase alpha (ACACA), mRNA |
| 470 | 13665 | | 11.25 | 2.0E-53 | AA366556.1 | EST_HUMAN | EST77525 Pancreas tumor III Homo sapiens cDNA 5' end |
| 2068 | 16209 | 28325 | 3.29 | 2.0E-53 | 7705394 | NT | Homo sapiens hyaluronic acid receptor (HAR), mRNA |
| 2404 | 16535 | 28662 | 6.26 | 2.0E-53 | U78027.1 | NT | Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds |
| 2601 | 15725 | | 12.68 | 2.0E-53 | 4502316 | NT | Homo sapiens ATPase, H+ transporting, lysosomal (vacuolar proton pump) 31kD; Vacuolar proton-ATPase, subunit E; V-ATPase, subunit E (ATP6E), mRNA |
| 3290 | 16464 | 29483 | 0.79 | 2.0E-53 | 7705687 | NT | Homo sapiens leucine aminopeptidase (LOC51056), mRNA |
| 3317 | 16490 | 29508 | 1.29 | 2.0E-53 | AF083822.1 | NT | Homo sapiens dihydropyridine receptor alpha 2 subunit (CACNA2D1) gene, exon 6 |
| 4170 | 17320 | 30313 | 2.59 | 2.0E-53 | M61873.1 | NT | Human Krueppel-related DNA-binding protein (TF34) gene, partial cds |
| 5542 | 18739 | 31756 | 2.46 | 2.0E-53 | BF334740.1 | EST_HUMAN | PM1-CT0396-170800-001-g03 CT0396 Homo sapiens cDNA |
| 5542 | 18739 | 31757 | 2.46 | 2.0E-53 | BF334740.1 | EST_HUMAN | PM1-CT0396-170800-001-g03 CT0396 Homo sapiens cDNA |
| 8055 | 21138 | 34658 | 1.01 | 2.0E-53 | AW975598.1 | EST_HUMAN | EST387707 MAGE resequences, MAGN Homo sapiens cDNA |
| 8196 | 21278 | | 0.48 | 2.0E-53 | AA095652.1 | EST_HUMAN | I5429.seq.F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA 5' |
| 9608 | 22663 | | 3.47 | 2.0E-53 | AW245676.1 | EST_HUMAN | 2822665.5prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2822665 5' |
| 10862 | 23895 | 37517 | 0.69 | 2.0E-53 | BE550195.1 | EST_HUMAN | 7b50b02.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3231627 3' similar to TR:Q04009 Q04009 MYOSIN HEAVY CHAIN. ; |
| 1477 | 14630 | 27715 | 2.2 | 1.0E-53 | AJ271736.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 2/2 |
| 3496 | 16663 | 29675 | 2.99 | 1.0E-53 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 5078 | 18206 | 31178 | 1.06 | 1.0E-53 | BE296386.1 | EST_HUMAN | 601176725F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531919 5' |
| 6831 | 19984 | 33392 | 1.5 | 1.0E-53 | BF364201.1 | EST_HUMAN | CM4-NN1029-150800-543-e02 NN1029 Homo sapiens cDNA |
| 7397 | 20475 | 33942 | 0.87 | 1.0E-53 | BE012071.1 | EST_HUMAN | RC5-BN1058-270400-031-D01 BN1058 Homo sapiens cDNA |
| 8120 | 21202 | 34723 | 0.6 | 1.0E-53 | AA249072.1 | EST_HUMAN | II9571.seq.F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA 5' |
| 9290 | 22366 | 35915 | 4.73 | 1.0E-53 | X79536.1 | NT | H.sapiens mRNA for hnRNPcore protein A1 |
| 12228 | 25176 | 38345 | 1.47 | 1.0E-53 | AW245422.1 | EST_HUMAN | 2822943.3prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2822943 3' |
| 3324 | 16497 | 29515 | 0.61 | 9.0E-54 | 4504116 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 5417 | 25803 | 31593 | 5.86 | 9.0E-54 | 4506786 | NT | Homo sapiens IQ motif containing GTPase activating protein 1 (IQGAP1) mRNA |
| 212 | 13435 | 26465 | 1.29 | 8.0E-54 | BE386785.1 | EST_HUMAN | 601272863F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3614031 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1882 | 15026 | 28133 | 2.08 | 8.0E-54 | 4504610 | NT | Homo sapiens insulin-like growth factor 2 receptor (IGF2R) mRNA |
| 6057 | 19239 | 32564 | 23.39 | 8.0E-54 | 6005700 | NT | Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 8 (ABCA8), mRNA |
| 395 | 13632 | 26669 | 1.35 | 7.0E-54 | AA812537.1 | EST_HUMAN | ai79c12.s1 Soares_testis_NHT Homo sapiens cDNA clone 1377046 3' similar to contains MER30.t3 MER30 repetitive element ; |
| 1877 | 15021 | 28128 | 2.23 | 7.0E-54 | Y16645.1 | NT | Homo sapiens mRNA for monocyte chemotactic protein-2 |
| 2278 | 15410 | 28541 | 7.63 | 7.0E-54 | N27177.1 | EST_HUMAN | yw68d12.s1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:257399 3' similar to contains LTR7.b3 LTR7 repetitive element ; |
| 10333 | 23368 | 36978 | 2.1 | 7.0E-54 | 11417222 | NT | Homo sapiens similar to nuclear factor related to kappa B binding protein (H. sapiens) (LOC63182), mRNA |
| 11365 | 24426 | 38081 | 1.4 | 7.0E-54 | 8923698 | NT | Homo sapiens golgin-like protein (GLP), mRNA |
| 11365 | 24426 | 38082 | 1.4 | 7.0E-54 | 8923698 | NT | Homo sapiens golgin-like protein (GLP), mRNA |
| 11570 | 24625 |  | 3.42 | 7.0E-54 | AI160189.1 | EST_HUMAN | qb67g03.x1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:1705204 3' similar to contains OFR.t1 OFR repetitive element ; |
| 25 | 13263 | 26265 | 0.84 | 6.0E-54 | AB003618.1 | NT | Homo sapiens DNA for MICB, exon 4, 5 and partial cds |
| 396 | 13633 | 26670 | 0.77 | 6.0E-54 | 8922148 | NT | Homo sapiens hypothetical protein DKFZp434M035 (DKFZp434M035), mRNA |
| 396 | 13633 | 26671 | 0.77 | 6.0E-54 | 8922148 | NT | Homo sapiens hypothetical protein DKFZp434M035 (DKFZp434M035), mRNA |
| 3365 | 16527 | 29542 | 0.72 | 6.0E-54 | 8922148 | NT | Homo sapiens hypothetical protein DKFZp434M035 (DKFZp434M035), mRNA |
| 4111 | 17265 | 30265 | 22.75 | 6.0E-54 | 4502872 | NT | Homo sapiens chloride channel 6 (CLCN6) mRNA |
| 4584 | 17721 | 30704 | 1.09 | 6.0E-54 | AV754746.1 | EST_HUMAN | AV754746 TP Homo sapiens cDNA clone TPGAAC10 5' |
| 4968 | 18097 | 31073 | 2.15 | 6.0E-54 | 4505806 | NT | Homo sapiens phosphatidylinositol 4-kinase, catalytic, alpha polypeptide (PIK4CA) mRNA |
| 4996 | 18125 |  | 2.04 | 6.0E-54 | Y09846.1 | NT | H.sapiens shc pseudogene, p66 isoform |
| 5115 | 18125 |  | 3.31 | 6.0E-54 | Y09846.1 | NT | H.sapiens shc pseudogene, p66 isoform |
| 11741 | 23927 | 37552 | 1.52 | 6.0E-54 | AW813567.1 | EST_HUMAN | RC3-ST0197-151099-011-f08 ST0197 Homo sapiens cDNA |
| 2218 | 15352 | 28483 | 1.94 | 5.0E-54 | P51523 | SWISSPROT | ZINC FINGER PROTEIN 84 (ZINC FINGER PROTEIN HPF2) |
| 187 | 13409 |  | 56.19 | 4.0E-54 | AF110103.1 | NT | Tupaia belangeri beta-actin mRNA, partial cds |
| 978 | 14151 | 27211 | 14.58 | 4.0E-54 | AA306764.1 | EST_HUMAN | EST177696 Jurkat T-cells VI Homo sapiens cDNA 5' end similar to glyceraldehyde-3-phosphate dehydrogenase |
| 1848 | 14994 | 28096 | 3.26 | 4.0E-54 | D38521.1 | NT | Human mRNA for KIAA0077 gene, partial cds |
| 1848 | 14994 | 28097 | 3.26 | 4.0E-54 | D38521.1 | NT | Human mRNA for KIAA0077 gene, partial cds |
| 3274 | 16448 |  | 1.85 | 4.0E-54 | AI935086.1 | EST_HUMAN | wd26d11.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2329269 3' similar to TR:O02711 O02711 PRO-POL-DUTPASE POLYPROTEIN ; |
| 96 | 13331 | 26358 | 8.12 | 3.0E-54 | AA313487.1 | EST_HUMAN | EST185371 Colon carcinoma (HCC) cell line Homo sapiens cDNA 5' end |
| 1604 | 14757 |  | 0.96 | 3.0E-54 | AW515742.1 | EST_HUMAN | hd87g08.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2916542 3' |
| 2635 | 15758 | 28872 | 1.19 | 3.0E-54 | AL110383.1 | EST_HUMAN | DKFZp434E0731_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434E0731 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6024 | 19207 | 32527 | 1.36 | 3.0E-54 | 4502434 | NT | Homo sapiens BMX non-receptor tyrosine kinase (BMX) mRNA |
| 7548 | 20620 | 34096 | 1.34 | 3.0E-54 | AA844061.1 | EST_HUMAN | ai92c08.s1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1388270 3' |
| 7548 | 20620 | 34097 | 1.34 | 3.0E-54 | AA844061.1 | EST_HUMAN | ai92c08.s1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1388270 3' |
| 11277 | 24344 | | 1.77 | 3.0E-54 | 11434806 | NT | Homo sapiens golgi autoantigen, golgin subfamily a, 5 (GOLGA5), mRNA |
| 11341 | 24404 | 38053 | 4.01 | 3.0E-54 | BF345600.1 | EST_HUMAN | 602019408F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4155121 5' |
| 11650 | 24729 | 38421 | 2.86 | 3.0E-54 | AA393362.1 | EST_HUMAN | zt70f12.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:727727 5' similar to TR:G191315 G191315 ANDROGEN-DEPENDENT EXPRESSED PROTEIN. ; |
| 12336 | 25243 | 32110 | 1.32 | 3.0E-54 | AW964659.1 | EST_HUMAN | EST366629 MAGE resequences, MAGC Homo sapiens cDNA |
| 12379 | 26149 | | 3.16 | 3.0E-54 | AW748965.1 | EST_HUMAN | RC1-BT0313-131199-011-b09 BT0313 Homo sapiens cDNA |
| 659 | 13845 | 26871 | 17.67 | 2.0E-54 | 5031900 | NT | Homo sapiens killer cell lectin-like receptor subfamily G, member 1 (KLRG1), mRNA |
| 1396 | 14550 | 27625 | 1.54 | 2.0E-54 | 4507164 | NT | Homo sapiens nuclear antigen Sp100 (SP100) mRNA |
| 2604 | 15727 | 28846 | 1.25 | 2.0E-54 | AW163175.1 | EST_HUMAN | au92g03.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2783764 5' similar to SW:CUL1_HUMAN Q13616 CULLIN HOMOLOG 1 ; |
| 2666 | 15787 | 28903 | 2.25 | 2.0E-54 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 2960 | 16137 | 29155 | 1.95 | 2.0E-54 | AW057524.1 | EST_HUMAN | wy60b12.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2552927 3' similar to TR:Q62084 Q62084 PHOSPHOLIPASE C NEIGHBORING ; |
| 3392 | 16562 | 29577 | 0.6 | 2.0E-54 | AJ278314.1 | NT | Homo sapiens mRNA for phospholipase C-beta-1b (PLCB1 gene) |
| 3638 | 16802 | | 6.1 | 2.0E-54 | AA532925.1 | EST_HUMAN | nj45g09.s1 NCI_CGAP_Pr9 Homo sapiens cDNA clone IMAGE:995488 similar to gb:X53777 60S RIBOSOMAL PROTEIN L23 (HUMAN); |
| 4321 | 17464 | | 1.74 | 2.0E-54 | 4502642 | NT | Homo sapiens chaperonin containing T-complex subunit 6 (CCT6) mRNA |
| 4563 | 17701 | | 7.1 | 2.0E-54 | AF208161.1 | NT | Homo sapiens syncytin precursor, mRNA, complete cds |
| 5591 | 18786 | 31833 | 2.66 | 2.0E-54 | 4759069 | NT | Homo sapiens small inducible cytokine subfamily A (Cys-Cys), member 14 (SCYA14) mRNA |
| 5720 | 18913 | 32209 | 1.21 | 2.0E-54 | BE047864.1 | EST_HUMAN | tz43c11.y1 NCI_CGAP_Brn52 Homo sapiens cDNA clone IMAGE:2291348 5' |
| 5882 | 19071 | 32379 | 3.99 | 2.0E-54 | 11426657 | NT | Homo sapiens KIAA0100 gene product (KIAA0100), mRNA |
| 5982 | 19167 | 32487 | 11.29 | 2.0E-54 | AB046811.1 | NT | Homo sapiens mRNA for KIAA1591 protein, partial cds |
| 5982 | 19167 | 32488 | 11.29 | 2.0E-54 | AB046811.1 | NT | Homo sapiens mRNA for KIAA1591 protein, partial cds |
| 6796 | 19951 | 33351 | 1.63 | 2.0E-54 | AF008915.1 | NT | Homo sapiens EVI5 homolog mRNA, complete cds |
| 6950 | 20263 | 33701 | 0.68 | 2.0E-54 | AB023212.1 | NT | Homo sapiens mRNA for KIAA0995 protein, partial cds |
| 6950 | 20263 | 33702 | 0.68 | 2.0E-54 | AB023212.1 | NT | Homo sapiens mRNA for KIAA0995 protein, partial cds |
| 7273 | 20356 | 33810 | 8.33 | 2.0E-54 | 11426544 | NT | Homo sapiens neurofibromin 1 (neurofibromatosis, von Recklinghausen disease, Watson disease) (NF1), mRNA |
| 9829 | 22869 | 36451 | 3.96 | 2.0E-54 | AB001025.1 | NT | Homo sapiens mRNA for brain ryanodine receptor, complete cds |
| 10213 | 23249 | 36838 | 1.14 | 2.0E-54 | 11429127 | NT | Homo sapiens Janus kinase 2 (a protein tyrosine kinase) (JAK2), mRNA |
| 10326 | 23361 | 36971 | 0.76 | 2.0E-54 | 11416762 | NT | Homo sapiens serologically defined colon cancer antigen 10 (SDCCAG10), mRNA |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10326 | 23361 | 36972 | 0.76 | 2.0E-54 | 11416762 | NT | Homo sapiens serologically defined colon cancer antigen 10 (SDCCAG10), mRNA |
| 10841 | 23874 | 37494 | 0.46 | 2.0E-54 | AB007931.1 | NT | Homo sapiens mRNA for KIAA0462 protein, partial cds |
| 11275 | 19951 | 33351 | 1.46 | 2.0E-54 | AF008915.1 | NT | Homo sapiens EVI5 homolog mRNA, complete cds |
| 12027 | 25011 | | 1.72 | 2.0E-54 | 7657454 | NT | Homo sapiens pescadillo (zebrafish) homolog 1, containing BRCT domain (PES1), mRNA |
| 12893 | 25591 | 31970 | 4.38 | 2.0E-54 | 8567387 | NT | Homo sapiens period (Drosophila) homolog 3 (PER3), mRNA |
| 4587 | 17724 | | 1.65 | 1.0E-54 | BF315418.1 | EST_HUMAN | 601899230F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4128535 5' |
| 8927 | 22006 | 35545 | 0.5 | 1.0E-54 | 11417222 | NT | Homo sapiens similar to nuclear factor related to kappa B binding protein (H. sapiens) (LOC63182), mRNA |
| 10459 | 23494 | 37105 | 0.52 | 1.0E-54 | AA412409.1 | EST_HUMAN | zu10e09.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:731464 5' |
| 10459 | 23494 | 37106 | 0.52 | 1.0E-54 | AA412409.1 | EST_HUMAN | zu10e09.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:731464 5' |
| 13086 | 25709 | | 2.33 | 1.0E-54 | AU077341.1 | EST_HUMAN | AU077341 Sugano cDNA library Homo sapiens cDNA clone Zrv6C880 similar to 5'-end region of Human gamma-glutamyl transpeptidase mRNA, 5 end |
| 10568 | 23603 | 37208 | 1.02 | 9.0E-55 | BE081469.1 | EST_HUMAN | QV2-BT0635-160400-143-h12 BT0635 Homo sapiens cDNA |
| 1344 | 14500 | | 1.59 | 8.0E-55 | Y07829.2 | NT | Homo sapiens RFB30 gene for RING finger protein |
| 1348 | 14503 | | 2.77 | 8.0E-55 | Y07829.2 | NT | Homo sapiens RFB30 gene for RING finger protein |
| 11471 | 24530 | | 1.83 | 8.0E-55 | AW409714.1 | EST_HUMAN | fh02a02.x1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2960907 5' |
| 9004 | 22083 | | 0.48 | 7.0E-55 | AW103839.1 | EST_HUMAN | xd76c02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2603522 3' similar to TR:O60365 O60365 FOS39554_1. ; |
| 9383 | 22458 | 36021 | 1.28 | 7.0E-55 | AA889581.1 | EST_HUMAN | ak28a11.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1407260 3' |
| 9416 | 22490 | 36055 | 1.71 | 7.0E-55 | AU139909.1 | EST_HUMAN | AU139909 PLACE1 Homo sapiens cDNA clone PLACE1011576 5' |
| 11485 | 24544 | 38215 | 8.08 | 7.0E-55 | AI561056.1 | EST_HUMAN | tq29f09.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2210249 3' |
| 11485 | 24544 | 38216 | 8.08 | 7.0E-55 | AI561056.1 | EST_HUMAN | tq29f09.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2210249 3' |
| 12726 | 25911 | 31860 | 1.18 | 7.0E-55 | BE670608.1 | EST_HUMAN | 7e37c01.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284640 3' |
| 13050 | 26063 | | 6.37 | 7.0E-55 | H23396.1 | EST_HUMAN | ym57g07.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:52444 5' |
| 11804 | 24794 | 38492 | 1.96 | 6.0E-55 | AB040934.1 | NT | Homo sapiens mRNA for KIAA1501 protein, partial cds |
| 1810 | 14959 | 28051 | 1.21 | 5.0E-55 | AA704971.1 | EST_HUMAN | zj95b09.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:462617 3' |
| 1810 | 14959 | 28052 | 1.21 | 5.0E-55 | AA704971.1 | EST_HUMAN | zj95b09.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:462617 3' |
| 4894 | 18024 | 31010 | 1.51 | 5.0E-55 | AW206021.1 | EST_HUMAN | UI-H-BI1-afy-g-09-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2723536 3' |
| 6670 | 19829 | 33217 | 1.49 | 5.0E-55 | 4502240 | NT | Homo sapiens arylsulfatase E (chondrodysplasia punctata 1) (ARSE), mRNA |
| 6670 | 19829 | 33218 | 1.49 | 5.0E-55 | 4502240 | NT | Homo sapiens arylsulfatase E (chondrodysplasia punctata 1) (ARSE), mRNA |
| 6805 | 25833 | 33360 | 1.08 | 5.0E-55 | 4505952 | NT | Homo sapiens paraoxonase 2 (PON2) mRNA, and translated products |
| 6805 | 25833 | 33361 | 1.08 | 5.0E-55 | 4505952 | NT | Homo sapiens paraoxonase 2 (PON2) mRNA, and translated products |
| 7182 | 20314 | 33757 | 1.03 | 5.0E-55 | 7382477 | NT | Homo sapiens Rho GTPase activating protein 6 (ARHGAP6), transcript variant 5, mRNA |
| 7446 | 20523 | 33996 | 0.72 | 5.0E-55 | 11434422 | NT | Homo sapiens speckle-type POZ protein (SPOP), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9244 | 22321 | 35865 | 2.3 | 5.0E-55 | 4506302 | NT | Homo sapiens protein tyrosine phosphatase, receptor type, alpha polypeptide (PTPRA) mRNA |
| 9520 | 22585 | | 0.91 | 5.0E-55 | BE064386.1 | EST_HUMAN | RC4-BT0310-110300-015-f10 BT0310 Homo sapiens cDNA |
| 10243 | 23278 | 36872 | 1.53 | 5.0E-55 | AB014511.1 | NT | Homo sapiens mRNA for KIAA0611 protein, partial cds |
| 10243 | 23278 | 36873 | 1.53 | 5.0E-55 | AB014511.1 | NT | Homo sapiens mRNA for KIAA0611 protein, partial cds |
| 10427 | 23462 | 37069 | 1.13 | 5.0E-55 | 5453765 | NT | Homo sapiens nel (chicken)-like 2 (NELL2), mRNA |
| 11502 | 24560 | 38236 | 1.3 | 5.0E-55 | 11421649 | NT | Homo sapiens SKAP55 homologue (SKAP-HOM), mRNA |
| 11502 | 24560 | 38237 | 1.3 | 5.0E-55 | 11421649 | NT | Homo sapiens SKAP55 homologue (SKAP-HOM), mRNA |
| 12421 | 26298 | | 1.73 | 5.0E-55 | 11417972 | NT | Homo sapiens pescadillo (zebrafish) homolog 1, containing BRCT domain (PES1), mRNA |
| 56 | 16004 | 26310 | 2.24 | 4.0E-55 | AW957994.1 | EST_HUMAN | EST370064 MAGE resequences, MAGE Homo sapiens cDNA |
| 689 | 13873 | 26906 | 32.17 | 4.0E-55 | 4826973 | NT | Homo sapiens RNA binding motif protein, Y chromosome, family 1, member A1 (RBMY1A1) mRNA |
| 1472 | 14626 | 27710 | 2.15 | 4.0E-55 | 7661713 | NT | Homo sapiens predicted osteoblast protein (GS3786), mRNA |
| 1472 | 14626 | 27711 | 2.15 | 4.0E-55 | 7661713 | NT | Homo sapiens predicted osteoblast protein (GS3786), mRNA |
| 1544 | 14696 | | 1.72 | 4.0E-55 | BF061411.1 | EST_HUMAN | 7j52b10.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3390043 3' similar to contains L1.t3 L1 repetitive element ; |
| 2081 | 15221 | 28341 | 2.19 | 4.0E-55 | 4506180 | NT | Homo sapiens proteasome (prosome, macropain) subunit, alpha type, 2 (PSMA2) mRNA |
| 2081 | 15221 | 28342 | 2.19 | 4.0E-55 | 4506180 | NT | Homo sapiens proteasome (prosome, macropain) subunit, alpha type, 2 (PSMA2) mRNA |
| 2161 | 15287 | 28412 | 8.36 | 4.0E-55 | 4503314 | NT | Homo sapiens diacylglycerol kinase, gamma (90kD) (DGKG) mRNA |
| 2161 | 15287 | 28413 | 8.36 | 4.0E-55 | 4503314 | NT | Homo sapiens diacylglycerol kinase, gamma (90kD) (DGKG) mRNA |
| 2384 | 15515 | 28644 | 3.02 | 4.0E-55 | 4507794 | NT | Homo sapiens ubiquitin-conjugating enzyme E2 variant 1 (UBE2V1) mRNA |
| 8539 | 21620 | | 9.85 | 4.0E-55 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 11606 | 24563 | | 2.31 | 4.0E-55 | W28189.1 | EST_HUMAN | 43o5 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |
| 12337 | 25244 | | 1.82 | 4.0E-55 | BF303941.1 | EST_HUMAN | 601886575F2 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4120338 5' |
| 6731 | 19887 | 33279 | 0.68 | 3.0E-55 | AA077156.1 | EST_HUMAN | 7B09A09 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B09A09 |
| 12273 | 25205 | | 4.18 | 3.0E-55 | BE178519.1 | EST_HUMAN | PM1-HT0603-090300-001-g08 HT0603 Homo sapiens cDNA |
| 13103 | 25719 | | 3.53 | 3.0E-55 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 388 | 13594 | 26630 | 1.69 | 2.0E-55 | X57147.1 | NT | Human endogenous retrovirus pHE.1 (ERV9) |
| 565 | 13757 | | 1.08 | 2.0E-55 | M10976.1 | NT | Human endogenous retroviral DNA (4-1), complete retroviral segment |
| 666 | 13852 | 26880 | 3.98 | 2.0E-55 | 4507296 | NT | Homo sapiens syntaxin-binding protein 1 (STXBP1) mRNA, and translated products |
| 3023 | 16199 | 29222 | 0.89 | 2.0E-55 | 4507798 | NT | Homo sapiens ubiquitin protein ligase E3A (human papilloma virus E6-associated protein, Angelman syndrome) (UBE3A) mRNA |
| 4897 | 18027 | 31014 | 3.51 | 2.0E-55 | BE719986.1 | EST_HUMAN | CM1-HT0876-150800-357-g03 HT0876 Homo sapiens cDNA |
| 7673 | 25851 | 34217 | 0.85 | 2.0E-55 | AW501988.1 | EST_HUMAN | UI-HF-BN0-aks-f-06-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078275 5' |
| 9265 | 22342 | 35892 | 0.48 | 2.0E-55 | BF224452.1 | EST_HUMAN | hr76h08.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3134463 3' |
| 9265 | 22342 | 35893 | 0.48 | 2.0E-55 | BF224452.1 | EST_HUMAN | hr76h08.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3134463 3' |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9361 | 22436 | | 4.33 | 2.0E-55 | AI002836.1 | EST_HUMAN | am98h05.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:1684185 3' similar to contains THR.b2 THR repetitive element ; |
| 9442 | 22516 | | 0.67 | 2.0E-55 | BE007959.1 | EST_HUMAN | QV0-BN0147-280400-213-g06 BN0147 Homo sapiens cDNA |
| 11192 | 24261 | 37897 | 2.35 | 2.0E-55 | AU119344.1 | EST_HUMAN | AU119344 HEMBA1 Homo sapiens cDNA clone HEMBA1005583 5' |
| 13177 | 16199 | 29222 | 1.34 | 2.0E-55 | 4507798 | NT | Homo sapiens ubiquitin protein ligase E3A (human papilloma virus E6-associated protein, Angelman syndrome) (UBE3A) mRNA |
| 99 | 13334 | 26361 | 1.62 | 1.0E-55 | 4505060 | NT | Homo sapiens mannose-6-phosphate receptor (cation dependent) (M6PR) mRNA |
| 194 | 13417 | 26446 | 40.5 | 1.0E-55 | U09823.1 | NT | Oryctolagus cuniculus New Zealand white elongation factor 1 alpha (Rabefla2) mRNA, complete cds |
| 588 | 13779 | 26798 | 1.38 | 1.0E-55 | AI026718.1 | EST_HUMAN | ov85g09.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1644160 3' |
| 1173 | 14336 | 27392 | 3.92 | 1.0E-55 | AB020710.1 | NT | Homo sapiens mRNA for KIAA0903 protein, partial cds |
| 2006 | 15146 | 28251 | 2.33 | 1.0E-55 | BE277861.1 | EST_HUMAN | 601120116F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2967027 5' |
| 2006 | 15146 | 28252 | 2.33 | 1.0E-55 | BE277861.1 | EST_HUMAN | 601120116F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2967027 5' |
| 2401 | 15532 | | 4.65 | 1.0E-55 | 5803174 | NT | Homo sapiens SMA3 (SMA3), mRNA |
| 2415 | 15997 | 28673 | 1.44 | 1.0E-55 | AF000990.1 | NT | Homo sapiens testis-specific Testis Transcript Y 1 (TTY1) mRNA, partial cds |
| 2586 | 15711 | 28829 | 19.68 | 1.0E-55 | X13111.1 | NT | Human mRNA for HLA-A11E, a MHC class I molecule (major histocompatibility complex) |
| 2620 | 15743 | 28857 | 5.51 | 1.0E-55 | AB007866.2 | NT | Homo sapiens mRNA for KIAA0406 protein, partial cds |
| 2620 | 15743 | 28858 | 5.51 | 1.0E-55 | AB007866.2 | NT | Homo sapiens mRNA for KIAA0406 protein, partial cds |
| 2677 | 15797 | 28914 | 3.37 | 1.0E-55 | L54057.1 | NT | Homo sapiens CLP mRNA, partial cds |
| 2850 | 15964 | 29073 | 1.22 | 1.0E-55 | AB033045.1 | NT | Homo sapiens mRNA for KIAA1219 protein, partial cds |
| 3495 | 16662 | 29674 | 1.16 | 1.0E-55 | W28189.1 | EST_HUMAN | 43c5 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |
| 4097 | 17252 | 30263 | 4.28 | 1.0E-55 | AL163267.2 | NT | Homo sapiens chromosome 21 segment HS21C067 |
| 4409 | 17551 | 30536 | 1.1 | 1.0E-55 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 4853 | 17986 | | 0.94 | 1.0E-55 | N77261.1 | EST_HUMAN | yw44g03.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:245620 5' |
| 4949 | 18079 | 31054 | 1.15 | 1.0E-55 | AB037163.1 | NT | Homo sapiens DSCR5b mRNA, complete cds |
| 4949 | 18079 | 31055 | 1.15 | 1.0E-55 | AB037163.1 | NT | Homo sapiens DSCR5b mRNA, complete cds |
| 5614 | 18808 | 31876 | 0.65 | 1.0E-55 | AF119856.1 | NT | Homo sapiens PRO1851 mRNA, complete cds |
| 6401 | 19570 | 32932 | 7.26 | 1.0E-55 | 11433046 | NT | Homo sapiens hect domain and RLD 2 (HERC2), mRNA |
| 6401 | 19570 | 32933 | 7.26 | 1.0E-55 | 11433046 | NT | Homo sapiens hect domain and RLD 2 (HERC2), mRNA |
| 8178 | 21260 | 34782 | 1.7 | 1.0E-55 | 11432994 | NT | Homo sapiens discs, large (Drosophila) homolog 2 (chapsyn-110) (DLG2), mRNA |
| 8178 | 21260 | 34783 | 1.7 | 1.0E-55 | 11432994 | NT | Homo sapiens discs, large (Drosophila) homolog 2 (chapsyn-110) (DLG2), mRNA |
| 8266 | 21348 | 34863 | 0.49 | 1.0E-55 | 11421649 | NT | Homo sapiens SKAP55 homologue (SKAP-HOM), mRNA |
| 8273 | 21365 | 34872 | 0.93 | 1.0E-55 | AF224492.1 | NT | Homo sapiens phospholipid scramblase 1 gene, complete cds |
| 8273 | 21355 | 34873 | 0.93 | 1.0E-55 | AF224492.1 | NT | Homo sapiens phospholipid scramblase 1 gene, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11152 | 24223 | 37851 | 2.41 | 1.0E-55 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 11152 | 24223 | 37852 | 2.41 | 1.0E-55 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 11733 | 23919 | 37544 | 1.86 | 1.0E-55 | U50950.1 | NT | Human infant brain unknown product mRNA, complete cds |
| 11755 | 23941 | 37567 | 1.34 | 1.0E-55 | T10045.1 | EST_HUMAN | seq1576 b4HB3MA Cot8-HAP-Ft Homo sapiens cDNA clone b4HB3MA-COT8-HAP-Ft61 5' similar to similar to Chinese Hamster DHFR-coamplified protein mRNA |
| 11789 | 24779 | 38476 | 2.67 | 1.0E-55 | 8922743 | NT | Homo sapiens hypothetical protein FLJ10891 (FLJ10891), mRNA |
| 11876 | 24864 | 38660 | 1.78 | 1.0E-55 | 10567821 | NT | Homo sapiens DNA-binding protein (LOC56242),.mRNA |
| 7522 | 20595 | 34070 | 1.85 | 9.0E-56 | BE379074.1 | EST_HUMAN | 601237702F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3609552 5' |
| 11545 | 24601 | 38277 | 1.34 | 8.0E-56 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 2793 | 15909 | 29017 | 7.08 | 7.0E-56 | H19934.1 | EST_HUMAN | yn62g03.r1 Soares adult brain N2b5HB55Y Homo sapiens cDNA clone IMAGE:173044 5' similar to contains THR repetitive element ; |
| 7818 | 20873 | 34371 | 1.93 | 7.0E-56 | AW361213.1 | EST_HUMAN | RC1-CT0252-231099-013-b07 CT0252 Homo sapiens cDNA |
| 7818 | 20873 | 34372 | 1.93 | 7.0E-56 | AW361213.1 | EST_HUMAN | RC1-CT0252-231099-013-b07 CT0252 Homo sapiens cDNA |
| 1727 | 14877 | 27968 | 2.7 | 5.0E-56 | AW997712.1 | EST_HUMAN | RC3-BN0053-170200-011-h01 BN0053 Homo sapiens cDNA |
| 9362 | 22437 | 35995 | 0.71 | 5.0E-56 | AW015507.1 | EST_HUMAN | UI-H-BI0p-aau-a-05-0-UI.s1 NCI_CGAP_Sub2 Homo sapiens cDNA clone IMAGE:2710544 3' |
| 10599 | 23634 |  | 1.35 | 5.0E-56 | W28189.1 | EST_HUMAN | 43c5 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |
| 12513 | 26137 | 31550 | 2.47 | 5.0E-56 | H55099.1 | EST_HUMAN | CHR220038 Chromosome 22 exon Homo sapiens cDNA clone C22_55 5' |
| 28 | 13266 | 26268 | 8.64 | 4.0E-56 | AF141349.1 | NT | Homo sapiens beta-tubulin mRNA, complete cds |
| 28 | 13266 | 26269 | 8.64 | 4.0E-56 | AF141349.1 | NT | Homo sapiens beta-tubulin mRNA, complete cds |
| 2773 | 15888 | 28998 | 3.61 | 4.0E-56 | 4507728 | NT | Homo sapiens tubulin, beta polypeptide (TUBB) mRNA |
| 2773 | 15888 | 28999 | 3.61 | 4.0E-56 | 4507728 | NT | Homo sapiens tubulin, beta polypeptide (TUBB) mRNA |
| 2873 | 13732 | 26756 | 9.22 | 4.0E-56 | AF003528.1 | NT | Homo sapiens X-linked anhidroitic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 6387 | 19556 | 32915 | 4.94 | 4.0E-56 | AF217508.1 | NT | Homo sapiens uncharacterized bone marrow protein BM031 mRNA, complete cds |
| 6387 | 19556 | 32916 | 4.94 | 4.0E-56 | AF217508.1 | NT | Homo sapiens uncharacterized bone marrow protein BM031 mRNA, complete cds |
| 10724 | 23757 | 37364 | 1.68 | 4.0E-56 | AF043349.1 | NT | Homo sapiens lymphocyte-specific protein 1 (LSP1) gene, LSP1-7 allele, partial cds |
| 11163 | 24234 | 37863 | 7.73 | 4.0E-56 | AI498066.1 | EST_HUMAN | tm65g12.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2163046 3' |
| 11163 | 24234 | 37864 | 7.73 | 4.0E-56 | AI498066.1 | EST_HUMAN | tm65g12.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2163046 3' |
| 1372 | 14527 | 27601 | 2.69 | 3.0E-56 | 8924029 | NT | Homo sapiens hypothetical protein PRO1304 (PRO1304), mRNA |
| 1804 | 14953 | 28047 | 1.84 | 3.0E-56 | 6912743 | NT | Homo sapiens 5'-3' exoribonuclease 2 (XRN2), mRNA |
| 2217 | 15351 | 28482 | 1.6 | 3.0E-56 | 6912697 | NT | Homo sapiens oncogene TC21 (TC21), mRNA |
| 3195 | 16370 | 29376 | 1.67 | 3.0E-56 | AA325826.1 | EST_HUMAN | EST28889 Cerebellum II Homo sapiens cDNA 5' end |
| 3195 | 16370 | 29377 | 1.67 | 3.0E-56 | AA325826.1 | EST_HUMAN | EST28889 Cerebellum II Homo sapiens cDNA 5' end |
| 3939 | 17098 |  | 2.81 | 3.0E-56 | AF055066.1 | NT | Homo sapiens MHC class 1 region |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4507 | 17646 | 30634 | 0.67 | 3.0E-56 | 7657042 | NT | Homo sapiens Down syndrome candidate region 1 (DSCR1), mRNA |
| 4544 | 17682 | 30664 | 4.42 | 3.0E-56 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 4695 | 17830 | 30816 | 2.4 | 3.0E-56 | 5902085 | NT | Homo sapiens superkiller viralicidic activity 2 (S. cerevisiae homolog)-like (SKIV2L), mRNA |
| 5801 | 18991 | 32293 | 1.5 | 3.0E-56 | 4759163 | NT | Homo sapiens sparc/osteonectin, cwcv and kazal-like domains proteoglycan (testican) (SPOCK) mRNA |
| 5801 | 18991 | 32294 | 1.5 | 3.0E-56 | 4759163 | NT | Homo sapiens sparc/osteonectin, cwcv and kazal-like domains proteoglycan (testican) (SPOCK) mRNA |
| 7014 | 20150 | 33571 | 5.5 | 3.0E-56 | 11421124 | NT | Homo sapiens lysosomal-associated membrane protein 2 (LAMP2), mRNA |
| 7476 | 20551 | 34023 | 2.07 | 3.0E-56 | 4504970 | NT | Homo sapiens LIM binding domain 2 (LDB2) mRNA |
| 7476 | 20551 | 34024 | 2.07 | 3.0E-56 | 4504970 | NT | Homo sapiens LIM binding domain 2 (LDB2) mRNA |
| 9016 | 22095 | 35635 | 6.11 | 3.0E-56 | 11418704 | NT | Homo sapiens bone morphogenetic protein 5 (BMP5), mRNA |
| 10018 | 23056 | 36652 | 0.9 | 3.0E-56 | D63479.2 | NT | Homo sapiens mRNA for KIAA0145 protein, partial cds |
| 10698 | 23731 | 37336 | 1.39 | 3.0E-56 | 11434956 | NT | Homo sapiens KIAA0317 gene product (KIAA0317), mRNA |
| 10980 | 24059 | 37693 | 2.62 | 3.0E-56 | AB042556.1 | NT | Homo sapiens mRNA, similar to rat myomegalin, complete cds |
| 11594 | 24647 | 38330 | 4.64 | 3.0E-56 | 5902013 | NT | Homo sapiens nuclear pore complex interacting protein (NPIP), mRNA |
| 11594 | 24647 | 38331 | 4.64 | 3.0E-56 | 5902013 | NT | Homo sapiens nuclear pore complex interacting protein (NPIP), mRNA |
| 12377 | 25268 | 32075 | 1.62 | 3.0E-56 | 11434876 | NT | Homo sapiens caveolin 3 (CAV3), mRNA |
| 12377 | 25268 | 32076 | 1.62 | 3.0E-56 | 11434876 | NT | Homo sapiens caveolin 3 (CAV3), mRNA |
| 537 | 13730 |  | 11.95 | 2.0E-56 | AA199818.1 | EST_HUMAN | zq52a08.s1 Stratagene neuroepithelium (#937231) Homo sapiens cDNA clone IMAGE:645206 3' |
| 751 | 16021 | 26975 | 1.18 | 2.0E-56 | BE064386.1 | EST_HUMAN | RC4-BT0310-110300-015-f10 BT0310 Homo sapiens cDNA |
| 751 | 16021 | 26976 | 1.18 | 2.0E-56 | BE064386.1 | EST_HUMAN | RC4-BT0310-110300-015-f10 BT0310 Homo sapiens cDNA |
| 3053 | 16229 | 29249 | 0.94 | 2.0E-56 | AB037835.1 | NT | Homo sapiens mRNA for KIAA1414 protein, partial cds |
| 3391 | 16561 |  | 0.84 | 2.0E-56 | AB008681.1 | NT | Homo sapiens gene for activin receptor type IIB, complete cds |
| 3624 | 16788 | 29805 | 1.26 | 2.0E-56 | AV703184.1 | EST_HUMAN | AV703184 ADB Homo sapiens cDNA clone ADBCFG10 5' |
| 7239 | 20323 | 33767 | 1.39 | 2.0E-56 | 5730038 | NT | Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA |
| 1003 | 14174 |  | 3.01 | 1.0E-56 | AF190930.1 | NT | Macaca fascicularis protein tyrosine phosphatase (PRL-1) mRNA, complete cds |
| 3765 | 16926 | 29928 | 1.84 | 1.0E-56 | AW589833.1 | EST_HUMAN | hg23c11.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2946452 3' |
| 3765 | 16926 | 29929 | 1.84 | 1.0E-56 | AW589833.1 | EST_HUMAN | hg23c11.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2946452 3' |
| 5145 | 18268 | 31238 | 1.42 | 1.0E-56 | AI905162.1 | EST_HUMAN | QV-BT077-130199-079 BT077 Homo sapiens cDNA |
| 10161 | 23198 |  | 0.69 | 1.0E-56 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 10254 | 23289 | 36886 | 1.52 | 1.0E-56 | AW845987.1 | EST_HUMAN | RC2-CT0163-220999-001-E02 CT0163 Homo sapiens cDNA |
| 642 | 13827 |  | 1.39 | 9.0E-57 | AW880885.1 | EST_HUMAN | QV0-OT0033-070300-152-h03 OT0033 Homo sapiens cDNA |
| 11494 | 24552 | 38227 | 1.72 | 9.0E-57 | AF228497.1 | NT | Homo sapiens serine protease 17 (KLK4) gene, complete cds |
| 11494 | 24552 | 38228 | 1.72 | 9.0E-57 | AF228497.1 | NT | Homo sapiens serine protease 17 (KLK4) gene, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11811 | 24801 | 38500 | 2.2 | 9.0E-57 | AB020981.1 | NT | Homo sapiens mRNA for cyclin B2, complete cds |
| 14 | 13252 | 26252 | 1.02 | 8.0E-57 | 8923349 | NT | Homo sapiens hypothetical protein FLJ20371 (FLJ20371), mRNA |
| 308 | 13524 | 26558 | 2.93 | 8.0E-57 | AW816405.1 | EST_HUMAN | QV4-ST0234-181199-037-f05 ST0234 Homo sapiens cDNA |
| 907 | 14082 | 27147 | 7.49 | 8.0E-57 | AW264599.1 | EST_HUMAN | xr05d10.x1 NCI_CGAP_Brn53 Homo sapiens cDNA clone IMAGE:2759251 3' similar to gb:U05875 INTERFERON-GAMMA RECEPTOR BETA CHAIN PRECURSOR (HUMAN); |
| 1859 | 15005 | 28112 | 1.45 | 8.0E-57 | AA496109.1 | EST_HUMAN | zv51b12.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:757151 5' |
| 5355 | 26034 | 31679 | 1.92 | 8.0E-57 | 11418185 | NT | Homo sapiens aconitase 2, mitochondrial (ACO2), mRNA |
| 6529 | 19693 | 33066 | 0.61 | 8.0E-57 | AB020705.1 | NT | Homo sapiens mRNA for KIAA0898 protein, partial cds |
| 6593 | 19753 | 33138 | 12.82 | 8.0E-57 | AB023177.1 | NT | Homo sapiens mRNA for KIAA0960 protein, partial cds |
| 6593 | 19753 | 33139 | 12.82 | 8.0E-57 | AB023177.1 | NT | Homo sapiens mRNA for KIAA0960 protein, partial cds |
| 7607 | 20677 | 34152 | 0.62 | 8.0E-57 | 7662263 | NT | Homo sapiens KIAA0716 gene product (KIAA0716), mRNA |
| 7927 | 20977 | 34486 | 1.54 | 8.0E-57 | AB020644.1 | NT | Homo sapiens mRNA for KIAA0837 protein, partial cds |
| 7927 | 20977 | 34487 | 1.54 | 8.0E-57 | AB020644.1 | NT | Homo sapiens mRNA for KIAA0837 protein, partial cds |
| 11768 | 13252 | 26252 | 3.51 | 8.0E-57 | 8923349 | NT | Homo sapiens hypothetical protein FLJ20371 (FLJ20371), mRNA |
| 12041 | 25022 | 38726 | 1.74 | 8.0E-57 | 11433356 | NT | Homo sapiens ninein (LOC51199), mRNA |
| 12102 | 25082 | 38789 | 1.53 | 8.0E-57 | 11431260 | NT | Homo sapiens Ras suppressor protein 1 (RSU1), mRNA |
| 12791 | 25528 | 32007 | 1.67 | 8.0E-57 | 11545732 | NT | Homo sapiens SH3-domain binding protein 1 (SH3BP1), mRNA |
| 12808 | 25528 | 32007 | 1.94 | 8.0E-57 | 11545732 | NT | Homo sapiens SH3-domain binding protein 1 (SH3BP1), mRNA |
| 1246 | 14405 | 27467 | 0.88 | 7.0E-57 | AJ003100.1 | NT | Homo sapiens GYS2 gene, exon 14 |
| 2698 | 15817 | 28932 | 0.97 | 7.0E-57 | 7657592 | NT | Homo sapiens smg GDS-ASSOCIATED PROTEIN (SMAP), mRNA |
| 2698 | 15817 | 28933 | 0.97 | 7.0E-57 | 7657592 | NT | Homo sapiens smg GDS-ASSOCIATED PROTEIN (SMAP), mRNA |
| 3344 | 16517 | 29532 | 0.81 | 7.0E-57 | 6005979 | NT | Homo sapiens Kruppel-like factor 8 (KLF8), mRNA |
| 3982 | 17139 | 30143 | 3.14 | 7.0E-57 | AF012872.1 | NT | Homo sapiens phosphatidylinositol 4-kinase 230 (pi4K230) mRNA, complete cds |
| 3982 | 17139 | 30144 | 3.14 | 7.0E-57 | AF012872.1 | NT | Homo sapiens phosphatidylinositol 4-kinase 230 (pi4K230) mRNA, complete cds |
| 13185 | 26071 | | 3.99 | 5.0E-57 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 3849 | 17009 | 30010 | 6.03 | 4.0E-57 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 827 | 14005 | 27062 | 0.64 | 3.0E-57 | 4507798 | NT | Homo sapiens ubiquitin protein ligase E3A (human papilloma virus E6-associated protein, Angelman syndrome) (UBE3A) mRNA |
| 1362 | 14516 | | 12.47 | 3.0E-57 | AA230279.1 | EST_HUMAN | nc13f07.s1 NCI_CGAP_Pr1 Homo sapiens cDNA clone IMAGE:1008037 similar to SW:RS10_HUMAN P46783 40S RIBOSOMAL PROTEIN S10. ; |
| 2464 | 15591 | 28716 | 1.12 | 3.0E-57 | AA348335.1 | EST_HUMAN | EST54770 Hippocampus II Homo sapiens cDNA 5' end |
| 2768 | 15883 | 28992 | 1.03 | 3.0E-57 | BE676622.1 | EST_HUMAN | 7f33b10.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:3296443 3' similar to WP:Y47H9C.2 CE20263 ; |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2768 | 15883 | 28993 | 1.03 | 3.0E-57 | BE676622.1 | EST_HUMAN | 7f33b10.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:3296443 3' similar to WP:Y47H9C.2 CE20263 ; |
| 3652 | 16815 | 29827 | 1 | 3.0E-57 | AF232708.1 | NT | Homo sapiens cell-line tsA201a chloride ion current inducer protein I(Cln) gene, complete cds |
| 3788 | 16949 | | 51.29 | 3.0E-57 | AW853964.1 | EST_HUMAN | RC3-CT0254-110300-027-d10 CT0254 Homo sapiens cDNA |
| 6153 | 19329 | 32675 | 1.25 | 3.0E-57 | 11225608 | NT | Homo sapiens angiotensin I converting enzyme (peptidyl-dipeptidase A) 2 (ACE2), mRNA |
| 6251 | 19425 | 32771 | 3.25 | 3.0E-57 | BE796537.1 | EST_HUMAN | 601589896F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3944302 5' |
| 8338 | 21419 | 34945 | 3.92 | 3.0E-57 | W28130.1 | EST_HUMAN | 42f6 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |
| 8363 | 21444 | 34966 | 1.99 | 3.0E-57 | 11545798 | NT | Homo sapiens.hypothetical protein FLJ11656 (FLJ11656), mRNA |
| 8363 | 21444 | 34967 | 1.99 | 3.0E-57 | 11545798 | NT | Homo sapiens hypothetical protein FLJ11656 (FLJ11656), mRNA |
| 8476 | 21557 | 35090 | 0.78 | 3.0E-57 | 11427757 | NT | Homo sapiens KIAA0649 gene product (KIAA0649), mRNA |
| 8624 | 21704 | 35240 | 0.62 | 3.0E-57 | J05262.1 | NT | Human farnesyl pyrophosphate synthetase mRNA, complete cds |
| 9069 | 22138 | 35682 | 5.14 | 3.0E-57 | AU117659.1 | EST_HUMAN | AU117659 HEMBA1 Homo sapiens cDNA clone HEMBA1001910 5' |
| 9451 | 22567 | 36132 | 0.69 | 3.0E-57 | 11545798 | NT | Homo sapiens hypothetical protein FLJ11656 (FLJ11656), mRNA |
| 9451 | 22567 | 36133 | 0.69 | 3.0E-57 | 11545798 | NT | Homo sapiens hypothetical protein FLJ11656 (FLJ11656), mRNA |
| 11148 | 24220 | 37847 | 2.34 | 3.0E-57 | AW248374.1 | EST_HUMAN | 2820473.5prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2820473 5' |
| 12384 | 26167 | 31554 | 6.37 | 3.0E-57 | W23871.1 | EST_HUMAN | zb45d11.r1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:306549 5' |
| 12982 | 25640 | 31984 | 1.17 | 3.0E-57 | AJ003649.1 | EST_HUMAN | AJ003649 Selected chromosome 21 cDNA library Homo sapiens cDNA clone MPIpl10-1L1 |
| 1530 | 14683 | 27762 | 2.89 | 2.0E-57 | AF246219.1 | NT | Homo sapiens SNARE protein kinase SNAK mRNA, complete cds |
| 1630 | 14683 | 27763 | 2.89 | 2.0E-57 | AF246219.1 | NT | Homo sapiens SNARE protein kinase SNAK mRNA, complete cds |
| 2790 | 15906 | 29014 | 5.5 | 2.0E-57 | AA845419.1 | EST_HUMAN | ak02b02.s1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1404747 3' similar to contains Alu repetitive element;contains element MER22 repetitive element ; |
| 3525 | 16690 | | 1.4 | 2.0E-57 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 3641 | 16805 | 29818 | 0.72 | 2.0E-57 | R07702.1 | EST_HUMAN | ye98h01.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:125809 5' |
| 3641 | 16805 | 29819 | 0.72 | 2.0E-57 | R07702.1 | EST_HUMAN | ye98h01.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:125809 5' |
| 4304 | 17447 | 30433 | 0.71 | 2.0E-57 | AA018299.1 | EST_HUMAN | ze40c06.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:361450 5' |
| 4304 | 17447 | 30434 | 0.71 | 2.0E-57 | AA018299.1 | EST_HUMAN | ze40c06.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:361450 5' |
| 4632 | 17768 | 30749 | 7.42 | 2.0E-57 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 5786 | 18977 | | 1.48 | 2.0E-57 | AA016131.1 | EST_HUMAN | ze31c05.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:360584 5' similar to contains L1.t3 L1 repetitive element ; |
| 6158 | 19334 | | 31.41 | 2.0E-57 | BF115266.1 | EST_HUMAN | 7n80f04.x1 NCI_CGAP_Ov18 Homo sapiens cDNA clone IMAGE:3570966 3' similar to contains TAR1.t1 MER22 repetitive element ; |
| 6288 | 19461 | 32813 | 6.34 | 2.0E-57 | 11431281 | NT | Homo sapiens small inducible cytokine subfamily A (Cys-Cys), member 22 (SCYA22), mRNA |
| 8832 | 21911 | 35449 | 1.03 | 2.0E-57 | AF045452.1 | NT | Homo sapiens cell-line KG1 transcriptional regulatory protein p54 mRNA, complete cds |
| 10051 | 23089 | 36691 | 1.06 | 2.0E-57 | AF057722.1 | NT | Homo sapiens 17-beta-hydroxysteroid dehydrogenase IV (HSD17B4) gene, exons 3 and 4 |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11548 | 24604 | 38281 | 1.55 | 2.0E-57 | 11424084 | NT | Homo sapiens hypothetical protein FLJ20041 (FLJ20041), mRNA |
| 11548 | 24604 | 38282 | 1.55 | 2.0E-57 | 11424084 | NT | Homo sapiens hypothetical protein FLJ20041 (FLJ20041), mRNA |
| 11592 | 24645 | 38327 | 1.76 | 2.0E-57 | AJ245503.1 | NT | Homo sapiens partial mRNA for PEX5 related protein |
| 11592 | 24645 | 38328 | 1.76 | 2.0E-57 | AJ245503.1 | NT | Homo sapiens partial mRNA for PEX5 related protein |
| 13214 | 26097 | 31664 | 2.69 | 2.0E-57 | AF009668.1 | NT | Multiple sclerosis associated retrovirus polyprotein (pol) mRNA, partial cds |
| 2305 | 15437 | 28569 | 1.89 | 1.0E-57 | AW503208.1 | EST_HUMAN | UI-HF-BN0-akt-g-07-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078348 5' |
| 8891 | 21970 |  | 1.87 | 1.0E-57 | BE043031.1 | EST_HUMAN | ho32a08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3039062 3' similar to TR:O00246 O00246 HYPOTHETICAL 9.3 KD PROTEIN ; |
| 12545 | 25369 |  | 11.29 | 1.0E-57 | AW470791.1 | EST_HUMAN | ha33d06.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2875499 3' similar to contains THR.b3 THR repetitive element ; |
| 5794 | 18985 | 32288 | 0.83 | 9.0E-58 | AA297847.1 | EST_HUMAN | EST11348 Uterus Homo sapiens cDNA 5' end |
| 12854 | 25567 | 31990 | 1.94 | 9.0E-58 | BE395061.1 | EST_HUMAN | 601309465F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3631000 5' |
| 602 | 13791 |  | 1.68 | 8.0E-58 | BE868715.1 | EST_HUMAN | 601445948F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3850211 5' |
| 671 | 13857 | 26886 | 4.24 | 8.0E-58 | AI798376.1 | EST_HUMAN | tr34b07.x1 NCI_CGAP_Ov23 Homo sapiens cDNA clone IMAGE:2220181 3' similar to TR:O15475 O15475 UNNAMED HERV-H PROTEIN ; |
| 671 | 13857 | 26887 | 4.24 | 8.0E-58 | AI798376.1 | EST_HUMAN | tr34b07.x1 NCI_CGAP_Ov23 Homo sapiens cDNA clone IMAGE:2220181 3' similar to TR:O15476 O15476 UNNAMED HERV-H PROTEIN ; |
| 1904 | 15047 | 28157 | 2.4 | 8.0E-58 | 11434921 | NT | Homo sapiens putative protein O-mannosyltransferase (POMT2), mRNA |
| 1904 | 15047 | 28158 | 2.4 | 8.0E-58 | 11434921 | NT | Homo sapiens putative protein O-mannosyltransferase (POMT2), mRNA |
| 3040 | 16216 |  | 2.76 | 8.0E-58 | 7706132 | NT | Homo sapiens DHHC1 protein (LOC51304), mRNA |
| 7387 | 20465 | 33930 | 0.93 | 7.0E-58 | BE561971.1 | EST_HUMAN | 601346704F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3687577 5' |
| 11095 | 24168 |  | 4.64 | 7.0E-58 | 5174542 | NT | Homo sapiens MADS box transcription enhancer factor 2, polypeptide B (myocyte enhancer factor 2B) (MEF2B) mRNA |
| 11170 | 24241 | 37873 | 2.61 | 7.0E-58 | AW504109.1 | EST_HUMAN | UI-HF-BN0-ali-g-10-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3079867 5' |
| 11170 | 24241 | 37874 | 2.61 | 7.0E-58 | AW504109.1 | EST_HUMAN | UI-HF-BN0-ali-g-10-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3079867 5' |
| 2328 | 15460 | 28593 | 1.53 | 6.0E-58 | BE395061.1 | EST_HUMAN | 601309465F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3631000 5' |
| 2448 | 15576 | 28706 | 5.25 | 6.0E-58 | AU130689.1 | EST_HUMAN | AU130689 NT2RP3 Homo sapiens cDNA clone NT2RP3001263 5' |
| 2966 | 16142 | 29160 | 1.01 | 6.0E-58 | BE242150.1 | EST_HUMAN | TCAAP1E1219 Pediatric acute myelogenous leukemia cell (FAB M1) Baylor-HGSC project=TCAA Homo sapiens cDNA clone TCAAP1219 |
| 2966 | 16142 | 29161 | 1.01 | 6.0E-58 | BE242150.1 | EST_HUMAN | TCAAP1E1219 Pediatric acute myelogenous leukemia cell (FAB M1) Baylor-HGSC project=TCAA Homo sapiens cDNA clone TCAAP1219 |
| 6299 | 19472 | 32827 | 0.98 | 6.0E-58 | AF106911.1 | NT | Homo sapiens chemokine MIP-2 gamma (MIP-2 gamma) mRNA, complete cds |
| 10517 | 23552 | 37163 | 1.27 | 6.0E-58 | 11434746 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type 21 (PTPN21), mRNA |
| 12654 | 25434 |  | 1.22 | 6.0E-58 | 11526291 | NT | Homo sapiens hypothetical protein FLJ20454 (FLJ20454), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 311 | 13527 | 26560 | 3.06 | 5.0E-58 | 4507334 | NT | Homo sapiens synaptojanin 1 (SYNJ1), mRNA |
| 728 | 13910 | 26950 | 6.96 | 5.0E-58 | BE763984.1 | EST_HUMAN | RC4-NT0057-160600-016-b05 NT0057 Homo sapiens cDNA |
| 1221 | 14382 | 27442 | 2.9 | 5.0E-58 | AW797948.1 | EST_HUMAN | CM3-UM0043-240300-127-e07 UM0043 Homo sapiens cDNA |
| 1221 | 14382 | 27443 | 2.9 | 5.0E-58 | AW797948.1 | EST_HUMAN | CM3-UM0043-240300-127-e07 UM0043 Homo sapiens cDNA |
| 1222 | 14382 | 27442 | 2 | 5.0E-58 | AW797948.1 | EST_HUMAN | CM3-UM0043-240300-127-e07 UM0043 Homo sapiens cDNA |
| 1222 | 14382 | 27443 | 2 | 5.0E-58 | AW797948.1 | EST_HUMAN | CM3-UM0043-240300-127-e07 UM0043 Homo sapiens cDNA |
| 3400 | 16570 | 29585 | 4.09 | 5.0E-58 | AA988183.1 | EST_HUMAN | qr98e07.s1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1603908 3' |
| 4373 | 17516 | 30496 | 0.93 | 5.0E-58 | AI636745.1 | EST_HUMAN | ts89e07.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2238468 3' similar to SW:PRO2_ACACA P19984 PROFILIN II ; |
| 5746 | 18938 | | 1.91 | 5.0E-58 | 11496282 | NT | Homo sapiens placenta-specific 1 (PLAC1), mRNA |
| 6307 | 19479 | 32834 | 6.55 | 5.0E-58 | H23072.1 | EST_HUMAN | ym51h07.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:52071 5' |
| 6524 | 19689 | 33063 | 0.79 | 5.0E-58 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 6600 | 19760 | 33148 | 1.03 | 5.0E-58 | 11421330 | NT | Homo sapiens apical protein, Xenopus laevis-like (APXL), mRNA |
| 6917 | 20232 | 33665 | 0.6 | 5.0E-58 | AF051334.1 | NT | Homo sapiens nibrin (NBS) mRNA, complete cds |
| 6917 | 20232 | 33666 | 0.6 | 5.0E-58 | AF051334.1 | NT | Homo sapiens nibrin (NBS) mRNA, complete cds |
| 7255 | 20338 | 33788 | 0.71 | 5.0E-58 | 4885400 | NT | Homo sapiens holocytochrome c synthase (cytochrome c heme-lyase) (HCCS) mRNA |
| 8156 | 21238 | 34759 | 9.08 | 5.0E-58 | 8922693 | NT | Homo sapiens hypothetical protein FLJ10826 (FLJ10826), mRNA |
| 8648 | 21629 | 35167 | 0.68 | 5.0E-58 | AB046837.1 | NT | Homo sapiens mRNA for KIAA1617 protein, partial cds |
| 10061 | 23099 | 36701 | 0.96 | 5.0E-58 | 11430647 | NT | Homo sapiens pre-mRNA splicing factor similar to S. cerevisiae Prp18 (PRP18), mRNA |
| 10328 | 23363 | 36973 | 1.8 | 5.0E-58 | AL163218.2 | NT | Homo sapiens chromosome 21 segment HS21C018 |
| 10612 | 23646 | 37254 | 0.65 | 5.0E-58 | AB014511.1 | NT | Homo sapiens mRNA for KIAA0611 protein, partial cds |
| 10612 | 23646 | 37255 | 0.65 | 5.0E-58 | AB014511.1 | NT | Homo sapiens mRNA for KIAA0611 protein, partial cds |
| 12352 | 26065 | | 4.5 | 5.0E-58 | 11526293 | NT | Homo sapiens cat eye syndrome chromosome region, candidate 1 (CECR1), mRNA |
| 12850 | 26102 | | 1.47 | 5.0E-58 | 11426423 | NT | Homo sapiens acetyl-Coenzyme A carboxylase alpha (ACACA), mRNA |
| 384 | 13592 | 26627 | 1.71 | 4.0E-58 | 4502302 | NT | Homo sapiens ATP synthase, H+ transporting, mitochondrial F1 complex, O subunit (oligomycin sensitivity conferring protein) (ATP5O) mRNA |
| 819 | 13998 | 27052 | 1.87 | 4.0E-58 | 4504634 | NT | Homo sapiens interleukin 10 receptor, beta (IL10RB), mRNA |
| 1496 | 14649 | 27731 | 1.24 | 4.0E-58 | 4503648 | NT | Homo sapiens coagulation factor IX (plasma thromboplastic component, Christmas disease, hemophilia B) (F9) mRNA |
| 2696 | 15816 | 28930 | 2.12 | 4.0E-58 | U36251.1 | NT | Human beta-prime-adaptin (BAM22) gene, exon 3 |
| 3402 | 16572 | 29587 | 1.41 | 4.0E-58 | D16470.1 | NT | Human mRNA, Xq terminal portion |
| 3834 | 16994 | 29996 | 1 | 4.0E-58 | 5031660 | NT | Homo sapiens EGF-like repeats and discoidin I-like domains 3 (EDIL3), mRNA |
| 7995 | 21045 | 34557 | 0.68 | 4.0E-58 | BE463857.1 | EST_HUMAN | hy18a02.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:3197642 3' |
| 11624 | 24675 | 38366 | 7.44 | 4.0E-58 | 11424059 | NT | Homo sapiens E1B-55kDa-associated protein 5 (E1B-AP5), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 345 | 13556 | | 0.96 | 3.0E-58 | R17879.1 | EST_HUMAN | yg10e02.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:31693 5' |
| 1420 | 14574 | 27647 | 2.6 | 3.0E-58 | 4758981 | NT | Homo sapiens peptide YY (PYY) mRNA |
| 3246 | 16420 | 29435 | 3.07 | 3.0E-58 | BF569848.1 | EST_HUMAN | 602185789F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4309943 5' |
| 3246 | 16420 | 29436 | 3.07 | 3.0E-58 | BF569848.1 | EST_HUMAN | 602185789F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4309943 5' |
| 6390 | 19559 | 32918 | 0.61 | 3.0E-58 | BE089509.1 | EST_HUMAN | QV0-BT0702-170400-194-f09 BT0702 Homo sapiens cDNA |
| 6574 | 19736 | 33115 | 1.1 | 3.0E-58 | F07056.1 | EST_HUMAN | HSC1TG081 normalized infant brain cDNA Homo sapiens cDNA clone c-1tg08 |
| 6778 | 19933 | 33329 | 2.49 | 3.0E-58 | AV712977.1 | EST_HUMAN | AV712977 DCA Homo sapiens cDNA clone DCAAZG04 5' |
| 963 | 14136 | 27197 | 12.47 | 2.0E-58 | AF068624.1 | NT | Homo sapiens 5-aminolevulinate synthase 2 (ALAS2) gene, complete cds |
| 1318 | 14474 | | 7.88 | 2.0E-58 | BE208532.1 | EST_HUMAN | ba08b07.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823733 5' similar to gb:X69391 60S RIBOSOMAL PROTEIN L6 (HUMAN); gb:X81987 M.musculus mRNA for TAX responsive element binding protein (MOUSE); |
| 5461 | 18651 | 31630 | 0.94 | 2.0E-58 | AW074831.1 | EST_HUMAN | xa08a09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2567704 3' |
| 5473 | 25805 | 31652 | 2.63 | 2.0E-58 | BE907186.1 | EST_HUMAN | 601499961F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3901911 5' |
| 5473 | 25805 | 31685 | 2.53 | 2.0E-58 | BE907186.1 | EST_HUMAN | 601499961F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3901911 5' |
| 6182 | 19358 | 32706 | 1.7 | 2.0E-58 | BF513488.1 | EST_HUMAN | UI-H-BW1-ams-g-11-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3071060 3' |
| 6249 | 19423 | 32769 | 2.16 | 2.0E-58 | AI124874.1 | EST_HUMAN | am57e02.x1 Johnston frontal cortex Homo sapiens cDNA clone IMAGE:1539674 3' similar to WP:ZK328.1 CE05065 UBIQUITIN CONJUGATING ENZYME\; RECOVERIN SUBFAMILY OF EF-HAND CALCIUM BINDING PROTEIN ; |
| 6283 | 19456 | 32806 | 0.83 | 2.0E-58 | R92567.1 | EST_HUMAN | yq08h06.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:198379 5' |
| 7066 | 20119 | 33533 | 0.83 | 2.0E-58 | AI291407.1 | EST_HUMAN | qm84c01.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1895424 3' |
| 7307 | 20389 | 33848 | 2.79 | 2.0E-58 | AF134838.1 | NT | Homo sapiens endocytic receptor Endo180 (ENDO180) mRNA, complete cds |
| 7307 | 20389 | 33849 | 2.79 | 2.0E-58 | AF134838.1 | NT | Homo sapiens endocytic receptor Endo180 (ENDO180) mRNA, complete cds |
| 10979 | 24068 | 37692 | 16.01 | 2.0E-58 | BF307745.1 | EST_HUMAN | 601890812F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4131891 5' |
| 11207 | 24276 | 37913 | 1.58 | 2.0E-58 | AW872641.1 | EST_HUMAN | hm25f08.x1 NCI_CGAP_Thy4 Homo sapiens cDNA clone IMAGE:3013671 3' |
| 740 | 13922 | 26962 | 1.06 | 1.0E-58 | M65134.1 | NT | Human complement component C5 mRNA, 3'end |
| 1093 | 14258 | 27314 | 1.33 | 1.0E-58 | 6274549 | NT | Homo sapiens NADH dehydrogenase (ubiquinone) 1 beta subcomplex, 9 (22kD, B22) (NDUFB9), mRNA |
| 1358 | 14513 | 27586 | 1.12 | 1.0E-58 | AW957182.1 | EST_HUMAN | EST369252 MAGE resequences, MAGD Homo sapiens cDNA |
| 1358 | 14513 | 27587 | 1.12 | 1.0E-58 | AW957182.1 | EST_HUMAN | EST369252 MAGE resequences, MAGD Homo sapiens cDNA |
| 1427 | 14581 | 27654 | 2.8 | 1.0E-58 | AJ238093.1 | NT | Homo sapiens partial AF-4 gene, exons 2 to 7 and Alu repeat elements |
| 1697 | 14849 | 27935 | 1.28 | 1.0E-58 | BE466132.1 | EST_HUMAN | hy10f08.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:3196935 3' |
| 2719 | 15837 | 28947 | 1.01 | 1.0E-58 | AF217514.1 | NT | Homo sapiens uncharacterized bone marrow protein BM038 mRNA, complete cds |
| 2863 | 15977 | 29087 | 1.14 | 1.0E-58 | 4759169 | NT | Homo sapiens sterol regulatory element binding transcription factor 2 (SREBF2) mRNA |
| 2892 | 15206 | 28322 | 1.01 | 1.0E-58 | 5174444 | NT | Homo sapiens G protein-coupled receptor 69A (GPR69A) mRNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3627 | 16791 | 29809 | 0.93 | 1.0E-58 | 4758081 | NT | Homo sapiens chondroitin sulfate proteoglycan 2 (versican) (CSPG2) mRNA |
| 3627 | 16791 | 29810 | 0.93 | 1.0E-58 | 4758081 | NT | Homo sapiens chondroitin sulfate proteoglycan 2 (versican) (CSPG2) mRNA |
| 3814 | 16974 | 29977 | 0.66 | 1.0E-58 | 4507628 | NT | Homo sapiens transition protein 1 (during histone to protamine replacement) (TNP1) mRNA |
| 5085 | 18213 | 31186 | 7.13 | 1.0E-58 | AI141063.1 | EST_HUMAN | oz43h01.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1678129 3' |
| 6964 | 19150 | 32465 | 1.37 | 1.0E-58 | BE061860.1 | EST_HUMAN | RC1-BT0254-290100-015-e01 BT0254 Homo sapiens cDNA |
| 7002 | 20138 | 33556 | 0.87 | 1.0E-58 | 11422031 | NT | Homo sapiens hypothetical protein (LOC51260), mRNA |
| 8305 | 21387 |  | 0.49 | 1.0E-58 | AW973537.1 | EST_HUMAN | EST385637 MAGE resequences, MAGM Homo sapiens cDNA |
| 9070 | 22149 | 35695 | 0.62 | 1.0E-58 | 4505314 | NT | Homo sapiens myomesin (M-protein) 2 (165kD) (MYOM2), mRNA |
| 9182 | 22260 | 35802 | 0.77 | 1.0E-58 | AV751001.1 | EST_HUMAN | AV751001 NPC Homo sapiens cDNA clone NPCACH09 5' |
| 9282 | 22358 | 35907 | 0.64 | 1.0E-58 | AA412397.1 | EST_HUMAN | zt99f05.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:730497 5' |
| 9282 | 22358 | 35908 | 0.64 | 1.0E-58 | AA412397.1 | EST_HUMAN | zt99f05.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:730497 5' |
| 10389 | 23424 | 37031 | 0.65 | 1.0E-58 | 11432994 | NT | Homo sapiens discs, large (Drosophila) homolog 2 (chapsyn-110) (DLG2), mRNA |
| 12074 | 25055 |  | 2.1 | 1.0E-58 | X63392.1 | NT | H.sapiens immunoglobulin kappa light chain variable region L14 |
| 12100 | 25080 | 38787 | 2.61 | 1.0E-58 | D61405.1 | NT | Human MSH3 gene, exon10 |
| 2303 | 15435 | 28567 | 53.38 | 8.0E-59 | 4507378 | NT | Homo sapiens TATA box binding protein (TBP) mRNA |
| 6979 | 20207 | 33635 | 0.74 | 8.0E-59 | AA382291.1 | EST_HUMAN | EST95683 Testis I Homo sapiens cDNA 5' end |
| 6979 | 20207 | 33636 | 0.74 | 8.0E-59 | AA382291.1 | EST_HUMAN | EST95683 Testis I Homo sapiens cDNA 5' end |
| 8374 | 21455 | 34979 | 1.66 | 8.0E-59 | AI761963.1 | EST_HUMAN | wh50d06.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2384171 3' |
| 182 | 16006 |  | 1.97 | 6.0E-59 | BF035327.1 | EST_HUMAN | 601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 8015 | 21066 | 34579 | 0.62 | 6.0E-59 | AA962431.1 | EST_HUMAN | om81a04.s1 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1553550 3' similar to TR:Q13732 Q13732 SA GENE PRODUCT PRECURSOR. ; |
| 8440 | 21521 | 35060 | 0.69 | 6.0E-59 | AI750970.1 | EST_HUMAN | cn06h02.y1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn06h02 random |
| 3197 | 16372 | 29379 | 7.75 | 5.0E-59 | AI807484.1 | EST_HUMAN | wf48c11.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2358836 3' |
| 4780 | 17915 | 30901 | 9.94 | 5.0E-59 | X83497.1 | NT | H.sapiens DNA for ZNF80-linked ERV9 long terminal repeat |
| 7129 | 18555 | 31470 | 8.22 | 5.0E-59 | AW162304.1 | EST_HUMAN | au66c07.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2781228 3' similar to contains element TAR1 repetitive element ; |
| 9006 | 22085 | 35628 | 1.03 | 5.0E-59 | 11421778 | NT | Homo sapiens polymerase (RNA) III (DNA directed) (39kD) (RPC39), mRNA |
| 9906 | 22946 | 36532 | 1.44 | 5.0E-59 | AV762869.1 | EST_HUMAN | AV762869 MDS Homo sapiens cDNA clone MDSEIC12 5' |
| 11146 | 24218 | 37845 | 4.54 | 5.0E-59 | 11434908 | NT | Homo sapiens hypothetical protein (LOC57143), mRNA |
| 816 | 13995 | 27050 | 1.9 | 4.0E-59 | D80006.1 | NT | Human mRNA for KIAA0184 gene, partial cds |
| 1266 | 14423 | 27489 | 0.61 | 4.0E-59 | 4505818 | NT | Homo sapiens phosphatidylinositol-4-phosphate 5-kinase, type II, beta (PIP5K2B) mRNA, and translated products |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1266 | 14423 | 27490 | 0.61 | 4.0E-59 | 4505818 | NT | Homo sapiens phosphatidylinositol-4-phosphate 5-kinase, type II, beta (PIP5K2B) mRNA, and translated products |
| 4912 | 18042 | 31032 | 1.14 | 4.0E-59 | 4506758 | NT | Homo sapiens ryanodine receptor 3 (RYR3) mRNA |
| 4912 | 18042 | 31033 | 1.14 | 4.0E-59 | 4506758 | NT | Homo sapiens ryanodine receptor 3 (RYR3) mRNA |
| 5654 | 18848 | 32130 | 0.95 | 4.0E-59 | 11034810 | NT | Homo sapiens catenin (cadherin-associated protein), delta 2 (neural plakophilin-related arm-repeat protein) (CTNND2), mRNA |
| 12498 | 25996 | | 3.99 | 4.0E-59 | AF057720.1 | NT | Homo sapiens 17-beta-hydroxysteroid dehydrogenase IV (HSD17B4) gene, promoter region and exon 1 |
| 10 | 13248 | | 6.74 | 3.0E-59 | AW965524.1 | EST_HUMAN | EST377582 MAGE resequences, MAGI Homo sapiens cDNA |
| 234 | 13455 | 26481 | 3.88 | 3.0E-59 | 7662247 | NT | Homo sapiens KIAA0680 gene product (KIAA0680), mRNA |
| 1748 | 14897 | 27992 | 10.81 | 3.0E-59 | 4505860 | NT | Homo sapiens plasminogen activator, tissue (PLATa) mRNA |
| 1748 | 14897 | 27993 | 10.81 | 3.0E-59 | 4505860 | NT | Homo sapiens plasminogen activator, tissue (PLATa) mRNA |
| 2198 | 15333 | 28459 | 8.54 | 3.0E-59 | AB029035.1 | NT | Homo sapiens mRNA for KIAA1112 protein, partial cds |
| 2198 | 15333 | 28460 | 8.54 | 3.0E-59 | AB029035.1 | NT | Homo sapiens mRNA for KIAA1112 protein, partial cds |
| 3104 | 16280 | 29294 | 0.67 | 3.0E-59 | T18865.1 | EST_HUMAN | h02017t Testis 1 Homo sapiens cDNA clone h02017 5' end |
| 3104 | 16280 | 29295 | 0.67 | 3.0E-59 | T18865.1 | EST_HUMAN | h02017t Testis 1 Homo sapiens cDNA clone h02017 5' end |
| 3199 | 16374 | 29383 | 4.27 | 3.0E-59 | 4502014 | NT | Homo sapiens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA |
| 3199 | 16374 | 29384 | 4.27 | 3.0E-59 | 4502014 | NT | Homo sapiens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA |
| 3930 | 17089 | 30086 | 1.19 | 3.0E-59 | 4508044 | NT | Homo sapiens zona pellucida glycoprotein 2 (sperm receptor) (ZP2) mRNA |
| 4808 | 17942 | 30929 | 2.75 | 3.0E-59 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 4965 | 18094 | 31071 | 2.12 | 3.0E-59 | 7427522 | NT | Homo sapiens protein tyrosine phosphatase, receptor type, T (PTPRT), mRNA |
| 5162 | 18284 | | 1.22 | 3.0E-59 | M95961.1 | NT | Human prohormone converting enzyme (NEC2) gene, exon 2 |
| 6350 | 19520 | 32877 | 2.4 | 3.0E-59 | 8924074 | NT | Homo sapiens hypothetical protein PRO1741 (PRO1741), mRNA |
| 7516 | 20589 | 34064 | 1.85 | 3.0E-59 | 5454137 | NT | Homo sapiens nuclear receptor co-repressor 1 (NCOR1), mRNA |
| 8116 | 21198 | 34718 | 1.11 | 3.0E-59 | X12556.1 | NT | Human mRNA for dbl proto-oncogene |
| 8116 | 21198 | 34719 | 1.11 | 3.0E-59 | X12556.1 | NT | Human mRNA for dbl proto-oncogene |
| 10250 | 23285 | 36880 | 1.04 | 3.0E-59 | X70251.1 | NT | H. sapiens CKII-alpha gene |
| 10250 | 23285 | 36881 | 1.04 | 3.0E-59 | X70251.1 | NT | H. sapiens CKII-alpha gene |
| 12635 | 25428 | | 11.11 | 3.0E-59 | 11417866 | NT | Homo sapiens gamma-glutamyltransferase-like activity 1 (GGTLA1), mRNA |
| 6946 | 20259 | | 0.59 | 2.0E-59 | AA470073.1 | EST_HUMAN | zt98d05.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:730377 3' |
| 7216 | 20081 | 33494 | 0.59 | 2.0E-59 | AF135187.1 | NT | Homo sapiens interferon-induced protein p78 (MX1) gene, complete cds |
| 9837 | 22877 | | 4.84 | 2.0E-59 | AA309774.1 | EST_HUMAN | EST180633 Jurkat T-cells V Homo sapiens cDNA 5' end |
| 10746 | 23778 | | 1.34 | 2.0E-59 | BF365554.1 | EST_HUMAN | RC0-NT0036-100700-032-a07 NT0036 Homo sapiens cDNA |
| 11069 | 24144 | 37780 | 2.19 | 2.0E-59 | AW410698.1 | EST_HUMAN | fh07h04.x1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2961654 5' |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11069 | 24144 | 37781 | 2.19 | 2.0E-59 | AW410698.1 | EST_HUMAN | fh07h04.x1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2961654 5' |
| 12373 | 25266 | 32118 | 4.28 | 2.0E-59 | AI631809.1 | EST_HUMAN | wa36c12.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2300182 3' similar to TR:Q86542 Q86542 RTVL-H PROTEIN. ;contains LTR7.b1 LTR7 repetitive element ; |
| 12963 | 26019 | 31669 | 3.87 | 2.0E-59 | L11645.1 | NT | Homo sapiens alpha-tubulin mRNA, complete cds |
| 167 | 13392 | | 5.65 | 1.0E-59 | BE296411.1 | EST_HUMAN | 601176757F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531927 5' |
| 1569 | 14722 | 27803 | 1.04 | 1.0E-59 | T92522.1 | EST_HUMAN | ye25c09.r1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:118768 5' similar to SP:S21348 S21348 HYPOTHETICAL PROTEIN 4 - ; |
| 2683 | 15803 | | 2.65 | 1.0E-59 | AA748468.1 | EST_HUMAN | oa56h11.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1309029 3' similar to TR:Q13537 Q13537 MER37 TRANSPOSABLE ELEMENT, COMPLETE CONSENSUS SEQUENCE. ; |
| 7735 | 20796 | 34285 | 1.14 | 1.0E-59 | AJ130894.1 | NT | Homo sapiens mRNA for transcription factor |
| 7895 | 20947 | 34454 | 1.3 | 1.0E-59 | BE256814.1 | EST_HUMAN | 601111951F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3352692 5' |
| 7695 | 20947 | 34455 | 1.3 | 1.0E-59 | BE256814.1 | EST_HUMAN | 601111951F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3352692 5' |
| 9585 | 22727 | 36296 | 0.86 | 1.0E-59 | 11419630 | NT | Homo sapiens zinc finger protein 275 (ZNF275), mRNA |
| 9804 | 22844 | 36421 | 0.58 | 1.0E-59 | 11428849 | NT | Homo sapiens 3-hydroxyisobutyryl-Coenzyme A hydrolase (HIBCH), mRNA |
| 9804 | 22844 | 36422 | 0.58 | 1.0E-59 | 11428849 | NT | Homo sapiens 3-hydroxyisobutyryl-Coenzyme A hydrolase (HIBCH), mRNA |
| 11094 | 20796 | 34285 | 10.98 | 1.0E-59 | AJ130894.1 | NT | Homo sapiens mRNA for transcription factor |
| 783 | 13963 | 27013 | 1.45 | 8.0E-60 | AW977845.1 | EST_HUMAN | EST389849 MAGE resequences, MAGO Homo sapiens cDNA |
| 1499 | 14662 | 27734 | 3.21 | 8.0E-60 | 4759159 | NT | Homo sapiens small nuclear ribonucleoprotein D3 polypeptide (18kD) (SNRPD3) mRNA |
| 2241 | 15374 | 28502 | 4.76 | 8.0E-60 | 5174656 | NT | Homo sapiens differentiation-related gene 1 (nickel-specific induction protein) (RTP) mRNA |
| 2241 | 15374 | 28503 | 4.76 | 8.0E-60 | 5174656 | NT | Homo sapiens differentiation-related gene 1 (nickel-specific induction protein) (RTP) mRNA |
| 6103 | 19283 | 32616 | 1.16 | 8.0E-60 | AB029004.1 | NT | Homo sapiens mRNA for KIAA1081 protein, partial cds |
| 6633 | 19792 | 33181 | 0.89 | 8.0E-60 | S83182.1 | NT | hyaluronan-binding protein=hepatocyte growth factor activator homolog [human, plasma, mRNA, 2408 nt] |
| 7874 | 20928 | 34434 | 0.89 | 8.0E-60 | 11420841 | NT | Homo sapiens phosphate cytidylyltransferase 1, choline, beta isoform (PCYT1B), mRNA |
| 8152 | 21234 | 34755 | 3 | 8.0E-60 | X17033.1 | NT | Human mRNA for integrin alpha-2 subunit |
| 9139 | 22218 | 35762 | 2.93 | 8.0E-60 | 11428949 | NT | Homo sapiens S-antigen; retina and pineal gland (arrestin) (SAG), mRNA |
| 9671 | 22633 | 36202 | 0.78 | 8.0E-60 | 11417118 | NT | Homo sapiens KIAA0433 protein (KIAA0433), mRNA |
| 9671 | 22633 | 36203 | 0.78 | 8.0E-60 | 11417118 | NT | Homo sapiens KIAA0433 protein (KIAA0433), mRNA |
| 10799 | 23832 | 37455 | 0.62 | 8.0E-60 | 5453997 | NT | Homo sapiens RAN binding protein 7 (RANBP7), mRNA |
| 11071 | 24146 | 37783 | 4.17 | 8.0E-60 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 11071 | 24146 | 37784 | 4.17 | 8.0E-60 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 773 | 13954 | 27004 | 11.11 | 7.0E-60 | AF055066.1 | NT | Homo sapiens MHC class 1 region |
| 774 | 13954 | 27004 | 25.11 | 7.0E-60 | AF055066.1 | NT | Homo sapiens MHC class 1 region |
| 838 | 14016 | 27071 | 1.47 | 7.0E-60 | 4504634 | NT | Homo sapiens interleukin 10 receptor, beta (IL10RB), mRNA |

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## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2197 | 15332 | 28458 | 1.82 | 7.0E-60 | AF077188.1 | NT | Homo sapiens cullin 4A (CUL4A) mRNA, complete cds |
| 2845 | 15959 | 29068 | 0.96 | 7.0E-60 | AB011153.1 | NT | Homo sapiens mRNA for KIAA0581 protein, partial cds |
| 4295 | 17438 | 30425 | 2.4 | 7.0E-60 | 4505488 | NT | Homo sapiens ornithine decarboxylase 1 (ODC1) mRNA |
| 4698 | 17833 | 30818 | 0.91 | 7.0E-60 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 9607 | 22662 | 36235 | 4.21 | 7.0E-60 | H58041.1 | EST_HUMAN | yr12f04.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:205087 5' similar to contains LTR5 repetitive element ; |
| 11646 | 24725 | 38417 | 1.73 | 7.0E-60 | H58041.1 | EST_HUMAN | yr12f04.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:205087 5' similar to contains LTR5 repetitive element ; |
| 2248 | 15381 | 28509 | 1.16 | 6.0E-60 | BE964974.2 | EST_HUMAN | 601658751R1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3886069 3' |
| 8632 | 21712 |  | 8.04 | 6.0E-60 | H52456.1 | EST_HUMAN | yq78h09.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:201953 5' similar to contains OFR repetitive element ; |
| 86 | 13321 | 26348 | 1.06 | 5.0E-60 | AI807917.1 | EST_HUMAN | wf52c07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2359212 3' |
| 86 | 13321 | 26349 | 1.06 | 5.0E-60 | AI807917.1 | EST_HUMAN | wf52c07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2359212 3' |
| 2308 | 15440 | 28574 | 1.83 | 4.0E-60 | AW503208.1 | EST_HUMAN | UI-HF-BN0-akt-g-07-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078348 5' |
| 2308 | 15440 | 28575 | 1.83 | 4.0E-60 | AW503208.1 | EST_HUMAN | UI-HF-BN0-akt-g-07-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078348 5' |
| 3037 | 16213 |  | 1.45 | 4.0E-60 | AA299037.1 | EST_HUMAN | EST11498 Uterus Homo sapiens cDNA 5' end similar to similar to retrovirus-related pol |
| 7508 | 20582 | 34055 | 0.78 | 4.0E-60 | BF196068.1 | EST_HUMAN | hr81f05.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3134913 3' similar to SW:RHOP_MOUSE Q61085 GTP-RHO BINDING PROTEIN 1 ; |
| 9326 | 22402 |  | 0.65 | 4.0E-60 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 1907 | 15050 | 28161 | 4.98 | 3.0E-60 | BE662611.1 | EST_HUMAN | 601336446F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3690395 5' |
| 1907 | 15050 | 28162 | 4.98 | 3.0E-60 | BE562611.1 | EST_HUMAN | 601336446F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3690395 5' |
| 1918 | 15061 |  | 2.81 | 3.0E-60 | 6031190 | NT | Homo sapiens prohibitin (PHB) mRNA |
| 4579 | 17716 | 30699 | 2.75 | 3.0E-60 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 5494 | 18693 | 31709 | 0.59 | 3.0E-60 | BF365143.1 | EST_HUMAN | QV4-NN1149-250900-423-f01 NN1149 Homo sapiens cDNA |
| 5767 | 18949 | 32251 | 2.21 | 3.0E-60 | AW836196.1 | EST_HUMAN | RC3-LT0023-200100-012-a01 LT0023 Homo sapiens cDNA |
| 7093 | 18520 | 31513 | 1.07 | 3.0E-60 | AI792814.1 | EST_HUMAN | ol60h11.y5 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1534053 5' similar to SW:UDP_MOUSE P52624 URIDINE PHOSPHORYLASE ; |
| 8597 | 21678 | 35215 | 4.59 | 3.0E-60 | 5174644 | NT | Homo sapiens proline dehydrogenase (proline oxidase) (PRODH) mRNA |
| 8597 | 21678 | 35216 | 4.59 | 3.0E-60 | 5174644 | NT | Homo sapiens proline dehydrogenase (proline oxidase) (PRODH) mRNA |
| 8783 | 21862 | 35405 | 0.6 | 3.0E-60 | AI040235.1 | EST_HUMAN | ox56d09.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1660337 3' similar to SW:FORM_MOUSE Q05860 FORMIN ; |
| 8940 | 22019 | 35560 | 3.84 | 3.0E-60 | 5174644 | NT | Homo sapiens proline dehydrogenase (proline oxidase) (PRODH) mRNA |
| 13053 | 26058 |  | 1.55 | 3.0E-60 | AA485286.1 | EST_HUMAN | ab07h04.r1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:840151 5' similar to contains LTR10.t1 LTR10 repetitive element ; |

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Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 31 | 13269 | 26273 | 1.7 | 2.0E-60 | AY008285.1 | NT | Homo sapiens solute carrier (SLC25A18) mRNA, complete cds; nuclear gene for mitochondrial product |
| 1455 | 14608 | 27688 | 3.99 | 2.0E-60 | Z11694.1 | NT | H.sapiens 41kDa protein kinase related to rat ERK2 |
| 1759 | 14908 | 28001 | 2.2 | 2.0E-60 | M24603.1 | NT | Human bcr protein mRNA, 5' end |
| 3669 | 16832 | 29843 | 0.78 | 2.0E-60 | 4757867 | NT | Homo sapiens v-raf murine sarcoma viral oncogene homolog B1 (BRAF) mRNA |
| 4025 | 17181 | 30190 | 0.73 | 2.0E-60 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 6430 | 19598 | 32964 | 0.85 | 2.0E-60 | AI791952.1 | EST_HUMAN | nn01f12.y5 NCI_CGAP_Co9 Homo sapiens cDNA clone IMAGE:1076495 5' similar to contains THR.t1 THR repetitive element ; |
| 6621 | 19761 | 33169 | 1.26 | 2.0E-60 | AF004877.1 | NT | Homo sapiens pro-alpha 2(I) collagen (COL1A2) gene, complete cds |
| 6855 | 20008 | 33418 | 1.08 | 2.0E-60 | AF157476.1 | NT | Homo sapiens DNA polymerase zeta catalytic subunit (REV3) mRNA, complete cds |
| 6989 | 18508 | 31524 | 2.15 | 2.0E-60 | 4503044 | NT | Homo sapiens corticotropin releasing hormone receptor 2 (CRHR2) mRNA |
| 6989 | 18508 | 31625 | 2.15 | 2.0E-60 | 4503044 | NT | Homo sapiens corticotropin releasing hormone receptor 2 (CRHR2) mRNA |
| 7259 | 20342 | 33793 | 8.18 | 2.0E-60 | AA311159.1 | EST_HUMAN | EST181949 Jurkat T-cells V Homo sapiens cDNA 5' end similar to similar to prothymocin, alpha |
| 7259 | 20342 | 33794 | 8.18 | 2.0E-60 | AA311159.1 | EST_HUMAN | EST181949 Jurkat T-cells V Homo sapiens cDNA 5' end similar to similar to prothymosin, alpha |
| 7810 | 20865 |  | 0.9 | 2.0E-60 | BF512808.1 | EST_HUMAN | UI-H-BW1-amu-c-02-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3071210 3' |
| 8194 | 21276 | 34799 | 1.33 | 2.0E-60 | X85597.1 | EST_HUMAN | HS15BEST human adult testis Homo sapiens cDNA clone CAM_tEST15 |
| 9068 | 22147 | 36694 | 3.12 | 2.0E-60 | L36033.1 | NT | Human pre-B cell stimulating factor homologue (SDF1b) mRNA, complete cds |
| 10183 | 23220 | 36813 | 1.83 | 2.0E-60 | 11991659 | NT | Homo sapiens sema domain, transmembrane domain (TM), and cytoplasmic domain, (semaphorin) 6A (SEMA6A), mRNA |
| 10183 | 23220 | 36814 | 1.83 | 2.0E-60 | 11991659 | NT | Homo sapiens sema domain, transmembrane domain (TM), and cytoplasmic domain, (semaphorin) 6A (SEMA6A), mRNA |
| 11759 | 23945 | 37572 | 1.7 | 2.0E-60 | 11434729 | NT | Homo sapiens ribosomal protein S6 kinase, 90kD, polypeptide 5 (RPS6KA5), mRNA |
| 12672 | 25448 |  | 2.36 | 2.0E-60 | 11418192 | NT | Homo sapiens non-histone chromosome protein 2 (S. cerevisiae)-like 1 (NHP2L1), mRNA |
| 12829 | 25985 |  | 1.47 | 2.0E-60 | AF068757.1 | NT | Homo sapiens somatostatin receptor subtype 3 (SSTR3) gene, 5' flanking region and partial cds |
| 12848 | 25564 |  | 1.5 | 2.0E-60 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 535 | 13728 | 26752 | 1.02 | 1.0E-60 | BE178586.1 | EST_HUMAN | PM3-HT0605-270200-001-e08 HT0605 Homo sapiens cDNA |
| 4011 | 17168 | 30176 | 1.08 | 1.0E-60 | AU143389.1 | EST_HUMAN | AU143389 Y79AA1 Homo sapiens cDNA clone Y79AA1001854 5' |
| 5070 | 18198 | 31172 | 2.57 | 1.0E-60 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 8134 | 21216 | 34737 | 1.39 | 1.0E-60 | BE064410.1 | EST_HUMAN | RC4-BT0311-141199-011-h06 BT0311 Homo sapiens cDNA |
| 8955 | 22034 |  | 2.84 | 1.0E-60 | AA244041.1 | EST_HUMAN | nc04e12.r1 NCI_CGAP_Pr1 Homo sapiens cDNA clone IMAGE:1007182 similar to contains L1.t1 L1 repetitive element ; |
| 8982 | 22061 | 35601 | 1.35 | 1.0E-60 | AV754081.1 | EST_HUMAN | AV754081 TP Homo sapiens cDNA clone TPGAED05 5' |
| 12606 | 26079 |  | 1.49 | 1.0E-60 | AJ252313.1 | NT | Homo sapiens genomic hybrid Rhesus box |
| 1123 | 14288 | 27343 | 8.4 | 9.0E-61 | AU119344.1 | EST_HUMAN | AU119344 HEMBA1 Homo sapiens cDNA clone HEMBA1005583 5' |

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Table 4
Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8908 | 21987 | 35526 | 0.53 | 9.0E-61 | 4885546 | NT | Homo sapiens PHD finger protein 2 (PHF2) mRNA |
| 8908 | 21987 | 35527 | 0.53 | 9.0E-61 | 4885546 | NT | Homo sapiens PHD finger protein 2 (PHF2) mRNA |
| 2735 | 15852 | 28965 | 1.41 | 8.0E-61 | AW006478.1 | EST_HUMAN | wt05b10.x1 NCI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:2506555 3' |
| 2735 | 15852 | 28966 | 1.41 | 8.0E-61 | AW006478.1 | EST_HUMAN | wt05b10.x1 NCI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:2506555 3' |
| 3016 | 16192 | | 2.63 | 8.0E-61 | X57147.1 | NT | Human endogenous retrovirus pHE.1 (ERV9) |
| 8079 | 21161 | 34679 | 1.03 | 8.0E-61 | AA583968.1 | EST_HUMAN | nn59g06.s1 NCI_CGAP_Lar1 Homo sapiens cDNA clone IMAGE:1088218 3' |
| 130 | 13357 | 26389 | 0.79 | 7.0E-61 | 7706670 | NT | Homo sapiens PXR2b protein (PXR2b), mRNA |
| 130 | 13357 | 26390 | 0.79 | 7.0E-61 | 7706670 | NT | Homo sapiens PXR2b protein (PXR2b), mRNA |
| 276 | 13494 | 26524 | 3.06 | 6.0E-61 | BE409310.1 | EST_HUMAN | 601300938F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3635480 5' |
| 834 | 14012 | 27068 | 6.49 | 6.0E-61 | BE409310.1 | EST_HUMAN | 601300938F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3635480 5' |
| 1352 | 14507 | 27579 | 12.72 | 6.0E-61 | AF119860.1 | NT | Homo sapiens PRO2014 mRNA, complete cds |
| 1659 | 14811 | 27896 | 1.04 | 6.0E-61 | BE257400.1 | EST_HUMAN | 601109238F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350145 5' |
| 1679 | 14831 | 27916 | 2.91 | 6.0E-61 | AA596033.1 | EST_HUMAN | nn66h09.s1 NCI_CGAP_Lar1 Homo sapiens cDNA clone IMAGE:1088897 3' |
| 3381 | 16553 | 29667 | 8.16 | 6.0E-61 | AU130689.1 | EST_HUMAN | AU130689 NT2RP3 Homo sapiens cDNA clone NT2RP3001263 5' |
| 6155 | 19331 | 32677 | 2.96 | 6.0E-61 | S79249.1 | NT | Ig-beta/B29=CD79b {alternatively spliced} [human, B cells, mRNA Partial, 375 nt] |
| 7497 | 20572 | 34045 | 1.49 | 6.0E-61 | U24498.1 | NT | Human autosomal dominant polycystic kidney disease protein 1 (PKD1) gene |
| 7795 | 20861 | 34343 | 1.85 | 6.0E-61 | AF035737.1 | NT | Homo sapiens general transcription factor 2-I (GTF2I) mRNA, complete cds |
| 12564 | 14012 | 27068 | 1.66 | 6.0E-61 | BE409310.1 | EST_HUMAN | 601300938F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3635480 5' |
| 13157 | 25752 | 31925 | 1.42 | 6.0E-61 | U07000.1 | NT | Human breakpoint cluster region (BCR) gene, complete cds |
| 226 | 13448 | 26476 | 2.54 | 5.0E-61 | 8922990 | NT | Homo sapiens hypothetical protein FLJ11316 (FLJ11316), mRNA |
| 226 | 13448 | 26477 | 2.54 | 5.0E-61 | 8922990 | NT | Homo sapiens hypothetical protein FLJ11316 (FLJ11316), mRNA |
| 370 | 13579 | 26612 | 0.7 | 5.0E-61 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 1713 | 14864 | 27953 | 2.84 | 5.0E-61 | 4506008 | NT | Homo sapiens protein phosphatase 1, regulatory subunit 10 (PPP1R10) mRNA |
| 3101 | 16277 | 29291 | 2.19 | 5.0E-61 | AL163279.2 | NT | Homo sapiens chromosome 21 segment HS21C079 |
| 3268 | 16442 | 29462 | 1.82 | 5.0E-61 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 4090 | 17245 | | 2.22 | 5.0E-61 | AJ229041.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3 |
| 5118 | 13579 | 26612 | 0.75 | 5.0E-61 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 1798 | 14947 | 28039 | 1.94 | 4.0E-61 | AU140307.1 | EST_HUMAN | AU140307 PLACE2 Homo sapiens cDNA clone PLACE2000302 5' |
| 5936 | 19122 | 32435 | 0.71 | 4.0E-61 | 7661637 | NT | Homo sapiens DKFZP566B023 protein (DKFZP566B023), mRNA |
| 12349 | 25252 | | 9.47 | 4.0E-61 | AV731140.1 | EST_HUMAN | AV731140 HTF Homo sapiens cDNA clone HTFARB01 5' |
| 8616 | 21696 | 35234 | 0.7 | 3.0E-61 | AF150190.1 | EST_HUMAN | AF150190 Human mRNA from cd34+ stem cells Homo sapiens cDNA clone CBDAGB04 |
| 511 | 13705 | 26733 | 1.8 | 2.0E-61 | 8922829 | NT | Homo sapiens hypothetical protein FLJ11026 (FLJ11026), mRNA |
| 1239 | 14398 | 27480 | 5.33 | 2.0E-61 | BE168410.1 | EST_HUMAN | QV3-HT0513-060400-147-d01 HT0513 Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1239 | 14398 | 27461 | 5.33 | 2.0E-61 | BE168410.1 | EST_HUMAN | QV3-HT0513-060400-147-d01 HT0513 Homo sapiens cDNA |
| 1699 | 14851 | 27938 | 1.36 | 2.0E-61 | N53039.1 | EST_HUMAN | yv53d11.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:246453 3' similar to gb:L25444 60S RIBOSOMAL PROTEIN L35A (HUMAN); |
| 2706 | 15824 | | 1.72 | 2.0E-61 | N39397.1 | EST_HUMAN | yy03f11.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:270189 5' |
| 6556 | 19718 | 33094 | 0.88 | 2.0E-61 | 11426166 | NT | Homo sapiens ATPase, H+ transporting, lysosomal (vacuolar proton pump) non-catalytic accessory protein 1A (110/116kD) (ATP6N1A), mRNA |
| 9217 | 22295 | 35839 | 1.67 | 2.0E-61 | AV694317.1 | EST_HUMAN | AV694317 GKC Homo sapiens cDNA clone GKCELG06 5' |
| 9762 | 22700 | | 0.98 | 2.0E-61 | AB011108.1 | NT | Homo sapiens mRNA for KIAA0536 protein, partial cds |
| 10126 | 23164 | 36763 | 1.34 | 2.0E-61 | AW500256.1 | EST_HUMAN | UI-HF-BN0-akd-f-12-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3076774 5' |
| 10466 | 23491 | 37101 | 2.84 | 2.0E-61 | 11421778 | NT | Homo sapiens polymerase (RNA) III (DNA directed) (39kD) (RPC39), mRNA |
| 11123 | 24195 | | 4 | 2.0E-61 | 11419729 | NT | Homo sapiens ribosomal protein L44 (RPL44), mRNA |
| 13144 | 25744 | 31950 | 1.45 | 2.0E-61 | AW995326.1 | EST_HUMAN | QV0-BN0042-170300-162-f10 BN0042 Homo sapiens cDNA |
| 448 | 13644 | | 1.37 | 1.0E-61 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 794 | 13973 | 27026 | 1.26 | 1.0E-61 | 5453829 | NT | Homo sapiens origin recognition complex, subunit 2 (yeast homolog)-like (ORC2L) mRNA |
| 1430 | 14584 | 27658 | 1.07 | 1.0E-61 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 1809 | 14958 | | 1.02 | 1.0E-61 | U32657.1 | NT | Human polymorphic trinucleotide repeat in X-linked retinitis pigmentosa (RP3) gene region |
| 1906 | 15049 | 28160 | 4.43 | 1.0E-61 | 6005983 | NT | Homo sapiens zona pellucida glycoprotein 3A (sperm receptor) (ZP3A), mRNA |
| 2270 | 15403 | 28531 | 1.64 | 1.0E-61 | AW827281.1 | EST_HUMAN | xn11b09.y1 NCI_CGAP_Li5 Homo sapiens cDNA clone IMAGE:2693369 5' similar to contains element MSR1 repetitive element ; |
| 2896 | 16075 | 29093 | 0.98 | 1.0E-61 | BE386363.1 | EST_HUMAN | 601273513F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3614687 5' |
| 3463 | 16630 | 29650 | 0.85 | 1.0E-61 | 7662319 | NT | Homo sapiens KIAA0806 gene product (KIAA0806), mRNA |
| 3826 | 16986 | 29989 | 1.16 | 1.0E-61 | BE174455.1 | EST_HUMAN | QV2-HT0577-140300-077-g06 HT0577 Homo sapiens cDNA |
| 4374 | 17517 | 30497 | 1.05 | 1.0E-61 | M68840.1 | NT | Human monoamine oxidase A (MAOA) mRNA, complete cds |
| 4561 | 17699 | 30680 | 0.95 | 1.0E-61 | 4759249 | NT | Homo sapiens TRAF family member-associated NFKB activator (TANK) mRNA |
| 4561 | 17699 | 30681 | 0.95 | 1.0E-61 | 4759249 | NT | Homo sapiens TRAF family member-associated NFKB activator (TANK) mRNA |
| 4981 | 18110 | 31086 | 9.55 | 1.0E-61 | AW298181.1 | EST_HUMAN | UI-H-BW0-ajt-b-08-0-UI.s1 NCI_CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2732871 3' |
| 4981 | 18110 | 31087 | 9.55 | 1.0E-61 | AW298181.1 | EST_HUMAN | UI-H-BW0-ajt-b-08-0-UI.s1 NCI_CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2732871 3' |
| 5075 | 18203 | 31176 | 0.62 | 1.0E-61 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 5509 | 18708 | 31723 | 0.71 | 1.0E-61 | M76423.1 | NT | H.sapiens carbonic anhydrase VII (CA VII) gene, exons 4,5,6, and 7, and complete cds |
| 5806 | 18996 | 32301 | 1.07 | 1.0E-61 | 7662303 | NT | Homo sapiens KIAA0783 gene product (KIAA0783), mRNA |
| 6004 | 19189 | 32508 | 1.32 | 1.0E-61 | 11416891 | NT | Homo sapiens survival of motor neuron 1, telomeric (SMN1), mRNA |
| 7041 | 20094 | 33510 | 8.92 | 1.0E-61 | M30135.1 | NT | Human P40 T-cell and mast cell growth factor (hP40) gene, complete cds |
| 7240 | 20324 | 33768 | 0.77 | 1.0E-61 | 4759171 | NT | Homo sapiens SC35-interacting protein 1 (SRRP129), mRNA |
| 7341 | 20421 | 33883 | 1.39 | 1.0E-61 | 8923130 | NT | Homo sapiens hypothetical protein FLJ20128 (FLJ20128), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7341 | 20421 | 33884 | 1.39 | 1.0E-61 | 8923130 | NT | Homo sapiens hypothetical protein FLJ20128 (FLJ20128), mRNA |
| 8326 | 21408 | 34935 | 2.69 | 1.0E-61 | 11034840 | NT | Homo sapiens growth hormone releasing hormone (GHRH), mRNA |
| 8508 | 21589 | 35123 | 3.34 | 1.0E-61 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 9482 | 22539 | | 2.78 | 1.0E-61 | AW999726.1 | EST_HUMAN | MR0-BN0070-040400-010-h01 BN0070 Homo sapiens cDNA |
| 9557 | 22622 | 36193 | 0.58 | 1.0E-61 | 11416280 | NT | Homo sapiens cadherin 18 (CDH18), mRNA |
| 10235 | 23270 | 36861 | 4.8 | 1.0E-61 | 11428892 | NT | Homo sapiens KIAA0971 protein (KIAA0971), mRNA |
| 10871 | 23956 | 37585 | 5.61 | 1.0E-61 | 11425578 | NT | Homo sapiens actinin, alpha 4 (ACTN4), mRNA |
| 11178 | 24247 | 37880 | 1.72 | 1.0E-61 | AB044550.1 | NT | Homo sapiens P/OKcl.19 mRNA for ubiquitin-conjyugating enzyme E2, complete cds |
| 11325 | 24388 | 38033 | 1.44 | 1.0E-61 | AB007830.1 | NT | Homo sapiens mRNA for CSR2, complete cds |
| 12242 | 26043 | | 21.57 | 1.0E-61 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 12286 | 26031 | 31677 | 4 | 1.0E-61 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 12286 | 26031 | 31678 | 4 | 1.0E-61 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 13026 | 25676 | 31959 | 10.94 | 1.0E-61 | 11418127 | NT | Homo sapiens GTP binding protein 1 (GTPBP1), mRNA |
| 10565 | 23600 | 37206 | 1.06 | 9.0E-62 | BE064386.1 | EST_HUMAN | RC4-BT0310-110300-015-f10 BT0310 Homo sapiens cDNA |
| 4673 | 17808 | 30798 | 0.85 | 8.0E-62 | AA830420.1 | EST_HUMAN | oc56h11.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1354725 3' similar to SW:POL_MLVRK P31795 POL POLYPROTEIN ; |
| 1131 | 14296 | 27351 | 1.12 | 7.0E-62 | AV714334.1 | EST_HUMAN | AV714334 DCB Homo sapiens cDNA clone DCBAMA08 5' |
| 3595 | 16759 | 29775 | 0.84 | 7.0E-62 | P17480 | SWISSPROT | NUCLEOLAR TRANSCRIPTION FACTOR 1 (UPSTREAM BINDING FACTOR 1) (UBF-1) (AUTOANTIGEN NOR-90) |
| 6038 | 19221 | 32544 | 0.97 | 7.0E-62 | 11427965 | NT | Homo sapiens hypothetical protein (FLJ20261), mRNA |
| 11632 | 24712 | 38403 | 4.05 | 7.0E-62 | AI208681.1 | EST_HUMAN | qg56a04.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1839150 3' similar to TR:O15103 O15103 HYPOTHETICAL 27.3 KD PROTEIN. ; |
| 3063 | 16239 | | 1.55 | 6.0E-62 | U09410.1 | NT | Human zinc finger protein ZNF131 mRNA, partial cds |
| 3471 | 16638 | | 5.37 | 6.0E-62 | 11418255 | NT | Homo sapiens CGI-56 protein (CGI-56), mRNA |
| 7803 | 20859 | 34351 | 3.47 | 6.0E-62 | AI762801.1 | EST_HUMAN | wi04d02.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2389251 3' |
| 7803 | 20859 | 34352 | 3.47 | 6.0E-62 | AI762801.1 | EST_HUMAN | wi04d02.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2389251 3' |
| 8277 | 21359 | | 0.66 | 6.0E-62 | AW501124.1 | EST_HUMAN | UI-HF-BP0p-ait-d-09-0-UI.r1 NIH_MGC_51 Homo sapiens cDNA clone IMAGE:3072833 5' |
| 8452 | 21533 | 35063 | 1.52 | 6.0E-62 | 11431139 | NT | Homo sapiens CGI-18 protein (LOC51008), mRNA |
| 9554 | 22619 | 36189 | 3.67 | 6.0E-62 | AW814393.1 | EST_HUMAN | MR3-ST0203-130100-025-a09 ST0203 Homo sapiens cDNA |
| 429 | 13624 | 26664 | 1.46 | 5.0E-62 | AI950528.1 | EST_HUMAN | wx51e07.x1 NCI_CGAP_Lu28 Homo sapiens cDNA clone IMAGE:2547204 3' similar to SW:GG95_HUMAN Q08379 GOLGIN-95. ;contains element MER22 repetitive element ; |
| 2478 | 15605 | 28729 | 5.16 | 5.0E-62 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 2478 | 15605 | 28730 | 5.16 | 5.0E-62 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3506 | 16673 | 29683 | 2.55 | 5.0E-62 | 4506758 | NT | Homo sapiens ryanodine receptor 3 (RYR3) mRNA |
| 4447 | 17587 | 30568 | 1.75 | 5.0E-62 | AA431093.1 | EST_HUMAN | zw78e09.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:782344 3' similar to SW:NRDC_RAT P47245 NARDILYSIN ; |
| 8746 | 21825 | 35362 | 0.74 | 5.0E-62 | 4506758 | NT | Homo sapiens ryanodine receptor 3 (RYR3) mRNA |
| 9717 | 22782 | 36353 | 12.91 | 5.0E-62 | AW410687.1 | EST_HUMAN | fh07g09.x1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2961616 5' |
| 11543 | 24599 | 38274 | 2.38 | 5.0E-62 | 11425574 | NT | Homo sapiens muscle specific gene (M9), mRNA |
| 11543 | 24599 | 38275 | 2.38 | 5.0E-62 | 11425574 | NT | Homo sapiens muscle specific gene (M9), mRNA |
| 863 | 14040 | 27102 | 2.17 | 4.0E-62 | AW161479.1 | EST_HUMAN | au71d03.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2781701 5' similar to gb:M37104 ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN); |
| 863 | 14040 | 27103 | 2.17 | 4.0E-62 | AW161479.1 | EST_HUMAN | au71d03.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2781701 5' similar to gb:M37104 ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN); |
| 864 | 14040 | 27102 | 1.32 | 4.0E-62 | AW161479.1 | EST_HUMAN | au71d03.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2781701 5' similar to gb:M37104 ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN); |
| 864 | 14040 | 27103 | 1.32 | 4.0E-62 | AW161479.1 | EST_HUMAN | au71d03.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2781701 5' similar to gb:M37104 ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN); |
| 2529 | 15654 | 28778 | 1.9 | 4.0E-62 | AI827900.1 | EST_HUMAN | wf12b08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2350359 3' similar to gb:X57138_rna1 HISTONE H2B.2 (HUMAN); |
| 2529 | 15654 | 28779 | 1.9 | 4.0E-62 | AI827900.1 | EST_HUMAN | wf12b08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2350359 3' similar to gb:X57138_rna1 HISTONE H2B.2 (HUMAN); |
| 3486 | 16654 |  | 9.09 | 4.0E-62 | 4557887 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 6046 | 19229 | 32553 | 1.71 | 4.0E-62 | 4506978 | NT | Homo sapiens solute carrier family 13 (sodium-dependent dicarboxylate transporter), member 2 (SLC13A2) mRNA |
| 6426 | 19594 | 32960 | 2.81 | 4.0E-62 | 11420654 | NT | Homo sapiens ubiquitin specific protease 9, X chromosome (Drosophila fat facets related) (USP9X), mRNA |
| 7322 | 20404 | 33866 | 1.75 | 4.0E-62 | 11421041 | NT | Homo sapiens phosphoribosyl pyrophosphate synthetase 2 (PRPS2), mRNA |
| 7812 | 20867 | 34361 | 2.21 | 4.0E-62 | 7657057 | NT | Homo sapiens eukaryotic translation initiation factor 2B, subunit 2 (beta, 39kD) (EIF2B2), mRNA |
| 7812 | 20867 | 34362 | 2.21 | 4.0E-62 | 7657057 | NT | Homo sapiens eukaryotic translation initiation factor 2B, subunit 2 (beta, 39kD) (EIF2B2), mRNA |
| 8364 | 21445 | 34968 | 1.12 | 4.0E-62 | 11429973 | NT | Homo sapiens 26S proteasome-associated pad1 homolog (POH1), mRNA |
| 9047 | 22126 | 35670 | 6.42 | 4.0E-62 | AB033089.1 | NT | Homo sapiens mRNA for KIAA1263 protein, partial cds |
| 11263 | 24332 | 37973 | 2.62 | 4.0E-62 | Z78766.1 | NT | H.sapiens flow-sorted chromosome 6 HindIII fragment, SC6pA16D3 |
| 11263 | 24332 | 37974 | 2.62 | 4.0E-62 | Z78766.1 | NT | H.sapiens flow-sorted chromosome 6 HindIII fragment, SC6pA16D3 |
| 11500 | 24558 | 38233 | 63.7 | 4.0E-62 | S70584.1 | NT | thyroid-stimulating hormone alpha subunit [human, Genomic, 268 nt, segment 3 of 4] |
| 12269 | 25202 | 38360 | 1.18 | 4.0E-62 | 11418086 | NT | Homo sapiens putative nuclear protein (HRIHFB2122), mRNA |
| 12497 | 25989 |  | 1.65 | 4.0E-62 | 11418192 | NT | Homo sapiens non-histone chromosome protein 2 (S. cerevisiae)-like 1 (NHP2L1), mRNA |

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## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 12946 | 25657 | 31955 | 1.66 | 4.0E-62 | 11418322 | NT | Homo sapiens cadherin EGF LAG seven-pass G-type receptor 1 (CELSR1), mRNA |
| 13004 | 25653 | 31952 | 6.86 | 4.0E-62 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 13004 | 25653 | 31953 | 6.86 | 4.0E-62 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 13069 | 25693 | 31965 | 2.16 | 4.0E-62 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 76 | 13312 | 26338 | 0.69 | 3.0E-62 | 4557794 | NT | Homo sapiens neurofibromin 2 (bilateral acoustic neuroma) (NF2) mRNA |
| 3111 | 16287 | 29301 | 1.13 | 3.0E-62 | AB040909.1 | NT | Homo sapiens mRNA for KIAA1476 protein, partial cds |
| 3111 | 16287 | 29302 | 1.13 | 3.0E-62 | AB040909.1 | NT | Homo sapiens mRNA for KIAA1476 protein, partial cds |
| 3789 | 16950 | 29956 | 4.19 | 3.0E-62 | X52858.1 | NT | Human cyclophilin-related processed pseudogene |
| 8737 | 21816 | 35351 | 3.74 | 3.0E-62 | AI632733.1 | EST_HUMAN | wa33f04.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2299903 3' similar to contains THR.t2 THR repetitive element ; |
| 1259 | 14417 | 27482 | 2.71 | 2.0E-62 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 8974 | 22053 | 35595 | 5.59 | 2.0E-62 | BF329911.1 | EST_HUMAN | RC0-BN0284-300500-031-e05 BN0284 Homo sapiens cDNA |
| 8974 | 22053 | 35596 | 5.59 | 2.0E-62 | BF329911.1 | EST_HUMAN | RC0-BN0284-300500-031-e05 BN0284 Homo sapiens cDNA |
| 10376 | 23411 |  | 3.71 | 2.0E-62 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 11988 | 24973 |  | 8.83 | 2.0E-62 | BF330676.1 | EST_HUMAN | QV4-BT0257-081199-017-e03 BT0257 Homo sapiens cDNA |
| 1069 | 14235 | 27294 | 1.14 | 1.0E-62 | AF248540.1 | NT | Homo sapiens intersectin 2 (SH3D1B) mRNA, complete cds |
| 1575 | 14728 | 27809 | 18.41 | 1.0E-62 | L78810.1 | NT | Homo sapiens ADP/ATP carrier protein (ANT-2) gene, complete cds |
| 1842 | 14988 | 28088 | 1.64 | 1.0E-62 | AA625207.1 | EST_HUMAN | af70e11.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1047404 5' similar to WP:K01H12.1 CE03453 ; |
| 2981 | 16157 | 29176 | 1.22 | 1.0E-62 | AL039044.1 | EST_HUMAN | DKFZp566F104_r1 566 (synonym: hfkd2) Homo sapiens cDNA clone DKFZp566F104 5' |
| 4648 | 17784 | 30767 | 1.84 | 1.0E-62 | 8923201 | NT | Homo sapiens hypothetical protein FLJ20212 (FLJ20212), mRNA |
| 6418 | 19587 | 32950 | 2.02 | 1.0E-62 | U52111.2 | NT | Homo sapiens X28 region near ALD locus containing dual specificity phosphatase 9 (DUSP9), ribosomal protein L18a (RPL18a), Ca2+/Calmodulin-dependent protein kinase I (CAMKI), creatine transporter (CRTR), CDM protein (CDM), adrenoleukodystrophy protein > |
| 7284 | 20367 | 33820 | 1.07 | 1.0E-62 | AA490060.1 | EST_HUMAN | ab05c02.s1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:839906 3' |
| 7295 | 20377 | 33834 | 2.69 | 1.0E-62 | AA722878.1 | EST_HUMAN | zg89f10.s1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:409771 3' |
| 7295 | 20377 | 33835 | 2.69 | 1.0E-62 | AA722878.1 | EST_HUMAN | zg89f10.s1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:409771 3' |
| 8957 | 22036 | 35577 | 0.54 | 1.0E-62 | AA280050.1 | EST_HUMAN | zs93e07.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:706060 5' |
| 9258 | 22335 | 35885 | 1.65 | 1.0E-62 | 7662289 | NT | Homo sapiens KIAA0763 gene product (KIAA0763), mRNA |
| 9258 | 22335 | 35886 | 1.65 | 1.0E-62 | 7662289 | NT | Homo sapiens KIAA0763 gene product (KIAA0763), mRNA |
| 9302 | 22378 | 35928 | 1.92 | 1.0E-62 | X15533.1 | NT | H.sapiens lysosomal acid phosphatase gene (EC 3.1.3.2) Exon 9 |
| 9302 | 22378 | 35929 | 1.92 | 1.0E-62 | X15533.1 | NT | H.sapiens lysosomal acid phosphatase gene (EC 3.1.3.2) Exon 9 |
| 9757 | 22595 | 36263 | 3.03 | 1.0E-62 | AA465170.1 | EST_HUMAN | aa33d08.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:815055 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | *Top Hit Descriptor* |
|---|---|---|---|---|---|---|---|
| 11648 | 24727 | 38419 | 2.26 | 1.0E-62 | Z78698.1 | NT | H.sapiens flow-sorted chromosome 6 HindIII fragment, SC6pA14D8 |
| 12809 | 25540 | | 4.63 | 1.0E-62 | 11418322 | NT | Homo sapiens cadherin EGF LAG seven-pass G-type receptor 1 (CELSR1), mRNA |
| 13042 | 25684 | 31962 | 3.15 | 1.0E-62 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 348 | 13559 | 26587 | 2.27 | 9.0E-63 | AW816405.1 | EST_HUMAN | QV4-ST0234-181199-037-f05 ST0234 Homo sapiens cDNA |
| 2421 | 15550 | | 2.17 | 9.0E-63 | C18159.1 | EST_HUMAN | C18159 Human placenta cDNA (TFujiwara) Homo sapiens cDNA clone GEN-558C10 5' |
| 4152 | 17304 | 30297 | 8.77 | 9.0E-63 | AB002348.2 | NT | Homo sapiens mRNA for KIAA0350 protein, partial cds |
| 4152 | 17304 | 30298 | 8.77 | 9.0E-63 | AB002348.2 | NT | Homo sapiens mRNA for KIAA0350 protein, partial cds |
| 5358 | 18484 | 38824 | 4.69 | 9.0E-63 | 11418185 | NT | Homo sapiens aconitase 2, mitochondrial (ACO2), mRNA |
| 5582 | 18777 | 31822 | 1.44 | 9.0E-63 | Y15056.1 | NT | Homo sapiens mRNA for PkB kinase |
| 7332 | 20413 | 33875 | 3.78 | 9.0E-63 | 11426985 | NT | Homo sapiens nucleoporin 88kD (NUP88), mRNA |
| 8009 | 21059 | 34571 | 1.77 | 9.0E-63 | 4885544 | NT | Homo sapiens pyruvate dehydrogenase kinase, isoenzyme 3 (PDK3) mRNA |
| 8521 | 21602 | 35139 | 1.18 | 9.0E-63 | 11421160 | NT | Homo sapiens Ras association (RalGDS/AF-6) domain family 2 (RASSF2), mRNA |
| 11296 | 24362 | 38003 | 1.3 | 9.0E-63 | BF203406.1 | EST_HUMAN | 601865828F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4098487 5' |
| 2420 | 15549 | 28677 | 3.05 | 8.0E-63 | 4557734 | NT | Homo sapiens monoamine oxidase A (MAOA), nuclear gene encoding mitochondrial protein, mRNA |
| 2446 | 15574 | 28703 | 2.58 | 8.0E-63 | 5031810 | NT | Homo sapiens IL2-inducible T-cell kinase (ITK), mRNA |
| 3550 | 16715 | 29727 | 4.26 | 8.0E-63 | AF198349.1 | NT | Gallus gallus Dach2 protein (Dach2) mRNA, complete cds |
| 3550 | 16715 | 29728 | 4.26 | 8.0E-63 | AF198349.1 | NT | Gallus gallus Dach2 protein (Dach2) mRNA, complete cds |
| 4381 | 17524 | 30505 | 4.36 | 8.0E-63 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 952 | 14125 | | 3.38 | 7.0E-63 | AI672137.1 | EST_HUMAN | wm55g11.x1 NCI_CGAP_Ut2 Homo sapiens cDNA clone IMAGE:2439908 3' |
| 5455 | 18655 | | 70.59 | 6.0E-63 | AA420803.1 | EST_HUMAN | nc63f02.r1 NCI_CGAP_Pr1 Homo sapiens cDNA clone IMAGE:745947 similar to gb:Y00361 60S RIBOSOMAL PROTEIN (HUMAN); |
| 9075 | 22154 | 35698 | 0.62 | 5.0E-63 | 11526464 | NT | Homo sapiens G protein-coupled receptor 51 (GPR51), mRNA |
| 3398 | 16568 | 29584 | 0.88 | 4.0E-63 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 3910 | 17069 | 30066 | 1.06 | 4.0E-63 | AB014607.1 | NT | Homo sapiens mRNA for KIAA0707 protein, partial cds |
| 3910 | 17069 | 30067 | 1.06 | 4.0E-63 | AB014607.1 | NT | Homo sapiens mRNA for KIAA0707 protein, partial cds |
| 6575 | 19737 | 33116 | 2.6 | 4.0E-63 | AW750372.1 | EST_HUMAN | CM3-BT0595-190100-072-a09 BT0595 Homo sapiens cDNA |
| 6575 | 19737 | 33117 | 2.6 | 4.0E-63 | AW750372.1 | EST_HUMAN | CM3-BT0595-190100-072-a09 BT0595 Homo sapiens cDNA |
| 11397 | 24458 | 38121 | 2.02 | 4.0E-63 | AW134709.1 | EST_HUMAN | UI-H-BI1-abq-a-02-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2712482 3' |
| 11397 | 24458 | 38122 | 2.02 | 4.0E-63 | AW134709.1 | EST_HUMAN | UI-H-BI1-abq-a-02-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2712482 3' |
| 1989 | 15131 | 28235 | 15.19 | 3.0E-63 | AB018260.1 | NT | Homo sapiens mRNA for KIAA0717 protein, partial cds |
| 2840 | 15954 | 29061 | 1.49 | 3.0E-63 | J00310.1 | NT | Human Met-tRNA-i gene 1 |
| 2882 | 14425 | 27493 | 11.84 | 3.0E-63 | 6005963 | NT | Homo sapiens zinc finger protein 144 (Mel-18) (ZNF144), mRNA |
| 6603 | 19763 | 33151 | 33.93 | 3.0E-63 | 11545810 | NT | Homo sapiens hepatocellular carcinoma antigen gene 520 (LOC63928), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9907 | 22947 | 36533 | 0.83 | 3.0E-63 | BE876158.1 | EST_HUMAN | 601485656F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3888253 5' |
| 9907 | 22947 | 36534 | 0.83 | 3.0E-63 | BE876158.1 | EST_HUMAN | 601485656F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3888253 5' |
| 196 | 13419 | 26449 | 1.69 | 2.0E-63 | U07804.1 | NT | Human DNA topoisomerase I mRNA, partial cds |
| 203 | 13426 | 26457 | 1.65 | 2.0E-63 | 4885226 | NT | Homo sapiens eyes absent (Drosophila) homolog 2 (EYA2), mRNA |
| 510 | 13704 |  | 1.19 | 2.0E-63 | 4557624 | NT | Homo sapiens glutamate-cysteine ligase (gamma-glutamylcysteine synthetase), catalytic (72.8kD) (GLCLC) mRNA |
| 849 | 14027 | 27087 | 3.07 | 2.0E-63 | 7657042 | NT | Homo sapiens Down syndrome candidate region 1 (DSCR1), mRNA |
| 1597 | 14750 | 27834 | 1.54 | 2.0E-63 | AB030388.1 | NT | Homo sapiens RHCE mRNA for Rh blood CE group antigen polypeptide, complete cds |
| 1597 | 14750 | 27835 | 1.54 | 2.0E-63 | AB030388.1 | NT | Homo sapiens RHCE mRNA for Rh blood CE group antigen polypeptide, complete cds |
| 1806 | 14955 | 28049 | 2.02 | 2.0E-63 | BE410739.1 | EST_HUMAN | 601301627F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3636103 5' |
| 2146 | 15282 | 28407 | 1.05 | 2.0E-63 | AI863961.1 | EST_HUMAN | wj54b02.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2406603 3' similar to gb:M57609 GLI3 PROTEIN (HUMAN); |
| 3225 | 16399 | 29411 | 1.94 | 2.0E-63 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 3357 | 16529 | 29544 | 2.4 | 2.0E-63 | AF109718.1 | NT | Homo sapiens chromosome 3 subtelomeric region |
| 4014 | 17171 | 30179 | 3.19 | 2.0E-63 | L39891.1 | NT | Homo sapiens polycystic kidney disease-associated protein (PKD1) gene, complete cds |
| 4988 | 18117 | 31096 | 1.28 | 2.0E-63 | AF111167.2 | NT | Homo sapiens jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene |
| 5376 | 25802 | 31447 | 0.96 | 2.0E-63 | 11419429 | NT | Homo sapiens similar to ectonucleotide pyrophosphatase/phosphodiesterase 3 (H. sapiens) (LOC63214), mRNA |
| 6005 | 19190 | 32509 | 2.41 | 2.0E-63 | BF373541.1 | EST_HUMAN | QV1-FT0170-040700-265-c05 FT0170 Homo sapiens cDNA |
| 6005 | 19190 | 32510 | 2.41 | 2.0E-63 | BF373541.1 | EST_HUMAN | QV1-FT0170-040700-265-c05 FT0170 Homo sapiens cDNA |
| 6315 | 19487 | 32842 | 1.07 | 2.0E-63 | 11421940 | NT | Homo sapiens protein kinase, cAMP-dependent, regulatory, type II, beta (PRKAR2B), mRNA |
| 6315 | 19487 | 32843 | 1.07 | 2.0E-63 | 11421940 | NT | Homo sapiens protein kinase, cAMP-dependent, regulatory, type II, beta (PRKAR2B), mRNA |
| 6841 | 19994 | 33403 | 1.43 | 2.0E-63 | U66059.1 | NT | Human germline T-cell receptor beta chain Dopamine-beta-hydroxylase-like, TRY1, TRY2, TRY3, TCRBV27S1P, TCRBV22S1A2N1T, TCRBV9S1A1T, TCRBV7S1A1N2T, TCRBV5S1A1T, TCRBV13S3, TCRBV6S7P, TCRBV7S3A2T, TCRBV13S2A1T, TCRBV9S2A2PT, TCRBV7S2A1N4T, TCRBV13S9/13S> |
| 6887 | 20039 | 33448 | 0.72 | 2.0E-63 | AB032369.1 | NT | Homo sapiens MIST mRNA, partial cds |
| 6887 | 20039 | 33449 | 0.72 | 2.0E-63 | AB032369.1 | NT | Homo sapiens MIST mRNA, partial cds |
| 7222 | 20086 | 33502 | 1.72 | 2.0E-63 | 9910365 | NT | Homo sapiens Carbonic anhydrase-related protein 10 (LOC56934), mRNA |
| 7222 | 20086 | 33503 | 1.72 | 2.0E-63 | 9910365 | NT | Homo sapiens Carbonic anhydrase-related protein 10 (LOC56934), mRNA |
| 7957 | 21007 | 34517 | 0.96 | 2.0E-63 | AB046844.1 | NT | Homo sapiens mRNA for KIAA1624 protein, partial cds |
| 8730 | 21810 | 35346 | 4.29 | 2.0E-63 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9254 | 22331 | 35879 | 0.94 | 2.0E-63 | 11420949 | NT | Homo sapiens kinesin family member 3B (KIF3B), mRNA |
| 9254 | 22331 | 35880 | 0.94 | 2.0E-63 | 11420949 | NT | Homo sapiens kinesin family member 3B (KIF3B), mRNA |
| 10143 | 23181 | 36778 | 1.2 | 2.0E-63 | AL163218.2 | NT | Homo sapiens chromosome 21 segment HS21C018 |
| 10985 | 24064 | 37699 | 10.73 | 2.0E-63 | N78945.1 | EST_HUMAN | zb18b05.s1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:302385 3' similar to gb:X17206 40S RIBOSOMAL PROTEIN S4 (HUMAN); |
| 11012 | 24091 | 37728 | 2.89 | 2.0E-63 | AF099810.1 | NT | Homo sapiens neurexin III-alpha gene, partial cds |
| 11012 | 24091 | 37729 | 2.89 | 2.0E-63 | AF099810.1 | NT | Homo sapiens neurexin III-alpha gene, partial cds |
| 12380 | 25929 | 31759 | 3.64 | 2.0E-63 | 11418185 | NT | Homo sapiens aconitase 2, mitochondrial (ACO2), mRNA |
| 13101 | 25717 | 31940 | 1.19 | 2.0E-63 | 11418157 | NT | Homo sapiens calcium channel, voltage-dependent, alpha 1I subunit (CACNA1I), mRNA |
| 13172 | 25760 | 31930 | 1.37 | 2.0E-63 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 786 | 13965 | 27016 | 1.55 | 1.0E-63 | 7106446 | NT | Mus musculus wingless-related MMTV integration site 3A (Wnt3a), mRNA |
| 786 | 13965 | 27017 | 1.55 | 1.0E-63 | 7106446 | NT | Mus musculus wingless-related MMTV integration site 3A (Wnt3a), mRNA |
| 4461 | 17601 | 30579 | 3.31 | 1.0E-63 | F08465.1 | EST_HUMAN | HSCZVD111 normalized infant brain cDNA Homo sapiens cDNA clone c-zvd11 |
| 4461 | 17601 | 30580 | 3.31 | 1.0E-63 | F08465.1 | EST_HUMAN | HSCZVD111 normalized infant brain cDNA Homo sapiens cDNA clone c-zvd11 |
| 5468 | 18668 | 31647 | 1.73 | 1.0E-63 | AJ271736.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 2/2 |
| 5890 | 19078 | 32388 | 1.38 | 1.0E-63 | AW582266.1 | EST_HUMAN | QV0-ST0215-060100-083-b09 ST0215 Homo sapiens cDNA |
| 6521 | 19686 | 33058 | 0.68 | 1.0E-63 | AW451950.1 | EST_HUMAN | UI-H-BI3-alt-h-02-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:3068763 3' |
| 6521 | 19686 | 33059 | 0.68 | 1.0E-63 | AW451950.1 | EST_HUMAN | UI-H-BI3-alt-h-02-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:3068763 3' |
| 8668 | 21748 | | 2.97 | 1.0E-63 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 13121 | 26047 | | 8.88 | 1.0E-63 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 6089 | 19270 | 32598 | 0.61 | 9.0E-64 | AW401433.1 | EST_HUMAN | UI-HF-BK0-aad-b-09-0-UI.r1 NIH_MGC_36 Homo sapiens cDNA clone IMAGE:3053153 5' |
| 8051 | 21134 | 34654 | 5.57 | 9.0E-64 | AI478186.1 | EST_HUMAN | tm50b07.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2161525 3' |
| 1071 | 14237 | | 3.46 | 8.0E-64 | BE280796.1 | EST_HUMAN | 601155232F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3139038 5' |
| 6268 | 19442 | 32791 | 3.51 | 8.0E-64 | BE885755.1 | EST_HUMAN | 601508968F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3910336 5' |
| 12187 | 25146 | | 2.79 | 8.0E-64 | 11418177 | NT | Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA |
| 12243 | 25185 | | 3.68 | 8.0E-64 | T60651.1 | EST_HUMAN | yb98b02.r1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:79179 5' |
| 3618 | 16782 | | 0.74 | 7.0E-64 | BE394321.1 | EST_HUMAN | 601311455F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3633204 5' |
| 4854 | 17987 | 30974 | 5.34 | 7.0E-64 | 4507490 | NT | Homo sapiens thimet oligopeptidase 1 (THOP1) mRNA |
| 4854 | 17987 | 30975 | 5.34 | 7.0E-64 | 4507490 | NT | Homo sapiens thimet oligopeptidase 1 (THOP1) mRNA |
| 10239 | 23274 | 36865 | 2.62 | 7.0E-64 | Y07848.1 | NT | Homo sapiens EWS, gar22, rrp22 and bam22 genes |
| 1760 | 14909 | 28002 | 5.73 | 6.0E-64 | AI651992.1 | EST_HUMAN | wb51e07.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2309220 3' similar to gb:M15182 BETA-GLUCURONIDASE PRECURSOR (HUMAN); |
| 1760 | 14909 | 28003 | 5.73 | 6.0E-64 | AI651992.1 | EST_HUMAN | wb51e07.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2309220 3' similar to gb:M15182 BETA-GLUCURONIDASE PRECURSOR (HUMAN); |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3192 | 16367 | 29372 | 3.91 | 6.0E-64 | AW026445.1 | EST_HUMAN | wv13e03.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2529436 3' |
| 3192 | 16367 | 29373 | 3.91 | 6.0E-64 | AW026445.1 | EST_HUMAN | wv13e03.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2529436 3' |
| 5739 | 18932 | 32230 | 2.95 | 6.0E-64 | Y18933.1 | NT | Homo sapiens MCP-1 gene and enhancer region |
| 5739 | 18932 | 32231 | 2.95 | 6.0E-64 | Y18933.1 | NT | Homo sapiens MCP-1 gene and enhancer region |
| 5758 | 18950 | 32252 | 5.32 | 6.0E-64 | M13975.1 | NT | Homo sapiens protein kinase C beta-II type (PRKCB1) mRNA, complete cds |
| 5767 | 18959 | 32260 | 0.68 | 6.0E-64 | 6912461 | NT | Homo sapiens atrophin-1 interacting protein 1; activin receptor interacting protein 1 (KIAA0705), mRNA |
| 5951 | 19137 | 32452 | 0.74 | 6.0E-64 | 11422189 | NT | Homo sapiens calcitonin receptor (CALCR), mRNA |
| 5951 | 19137 | 32453 | 0.74 | 6.0E-64 | 11422189 | NT | Homo sapiens calcitonin receptor (CALCR), mRNA |
| 7384 | 20462 | 33925 | 2.54 | 6.0E-64 | 11525879 | NT | Homo sapiens mesenchyme homeo box 1 (MEOX1), mRNA |
| 7384 | 20462 | 33926 | 2.54 | 6.0E-64 | 11525879 | NT | Homo sapiens mesenchyme homeo box 1 (MEOX1), mRNA |
| 9528 | 22593 | 36164 | 7.39 | 6.0E-64 | 11420555 | NT | Homo sapiens acetyl-CoA synthetase (LOC55902), mRNA |
| 9706 | 22755 | 36326 | 1.75 | 6.0E-64 | AF274753.1 | NT | Homo sapiens progressive ankylosis-like protein (ANK) mRNA, complete cds |
| 9919 | 22959 | 36546 | 2.16 | 6.0E-64 | S76475.1 | NT | trkC [human, brain, mRNA, 2715 nt] |
| 11008 | 24087 | 37724 | 4.68 | 6.0E-64 | 11420197 | NT | Homo sapiens stromal antigen 3 (STAG3), mRNA |
| 11008 | 24087 | 37725 | 4.68 | 6.0E-64 | 11420197 | NT | Homo sapiens stromal antigen 3 (STAG3), mRNA |
| 11269 | 16367 | 29372 | 1.73 | 6.0E-64 | AW026445.1 | EST_HUMAN | wv13e03.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2529436 3' |
| 11269 | 16367 | 29373 | 1.73 | 6.0E-64 | AW026445.1 | EST_HUMAN | wv13e03.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2529436 3' |
| 12400 | 25280 | 32081 | 2.96 | 6.0E-64 | 11526198 | NT | Homo sapiens interleukin 10 receptor, beta (IL10RB), mRNA |
| 843 | 14021 | 27078 | 4.18 | 5.0E-64 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 843 | 14021 | 27079 | 4.18 | 5.0E-64 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 1369 | 14524 | 27598 | 1.02 | 5.0E-64 | AB020710.1 | NT | Homo sapiens mRNA for KIAA0903 protein, partial cds |
| 1453 | 14606 | 27685 | 1.15 | 5.0E-64 | L40933.1 | NT | Homo sapiens phosphoglucomutase-related protein (PGMRP) gene, complete cds |
| 1453 | 14606 | 27686 | 1.15 | 5.0E-64 | L40933.1 | NT | Homo sapiens phosphoglucomutase-related protein (PGMRP) gene, complete cds |
| 1749 | 14898 | 27994 | 1.54 | 5.0E-64 | U89358.1 | NT | Human l(3)mbt protein homolog mRNA, complete cds |
| 2887 | 14663 | 27746 | 4.43 | 5.0E-64 | 7662205 | NT | Homo sapiens KIAA0618 gene product (KIAA0618), mRNA |
| 2887 | 14663 | 27747 | 4.43 | 5.0E-64 | 7662205 | NT | Homo sapiens KIAA0618 gene product (KIAA0618), mRNA |
| 4068 | 17224 | 30231 | 7.25 | 5.0E-64 | AF017433.1 | NT | Homo sapiens putative transcription factor CR53 (CR53) mRNA, partial cds |
| 8000 | 21050 | 34563 | 0.71 | 4.0E-64 | BE794607.1 | EST_HUMAN | 601590382F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3944397 5' |
| 11051 | 24128 | 37763 | 2.34 | 4.0E-64 | AW813783.1 | EST_HUMAN | RC3-ST0197-120200-015-a03 ST0197 Homo sapiens cDNA |
| 11051 | 24128 | 37764 | 2.34 | 4.0E-64 | AW813783.1 | EST_HUMAN | RC3-ST0197-120200-015-a03 ST0197 Homo sapiens cDNA |
| 2271 | 15404 | 28532 | 8.77 | 3.0E-64 | C18895.1 | EST_HUMAN | C18895 Human placenta cDNA (TFujiwara) Homo sapiens cDNA clone GEN-569E02 5' |
| 3327 | 16500 | 29518 | 0.82 | 3.0E-64 | BE794381.1 | EST_HUMAN | 601589565F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943577 5' |
| 3529 | 16694 | 29704 | 1.83 | 3.0E-64 | AV711714.1 | EST_HUMAN | AV711714 DCA Homo sapiens cDNA clone DCAAMC01 5' |

## Table 4

### Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3529 | 16694 | 29705 | 1.83 | 3.0E-64 | AV711714.1 | EST_HUMAN | AV711714 DCA Homo sapiens cDNA clone DCAAMC01 5' |
| 6206 | 19381 | 32731 | 1.31 | 3.0E-64 | Z26273.1 | NT | H.sapiens isoform 1 gene for L-type calcium channel, exon 28 |
| 6471 | 19638 | 32997 | 0.68 | 3.0E-64 | AW500861.1 | EST_HUMAN | UI-HF-BP0p-aix-c-05-0-UI.r1 NIH_MGC_51 Homo sapiens cDNA clone IMAGE:3073161 5' |
| 6622 | 19782 | 33170 | 3.2 | 3.0E-64 | BF370000.1 | EST_HUMAN | RC6-FN0019-290600-011-G11 FN0019 Homo sapiens cDNA |
| 8661 | 21741 | 35281 | 1.86 | 3.0E-64 | AF248953.1 | NT | Homo sapiens golgi matrix protein GM130 (GOLGA2) mRNA, complete cds |
| 8661 | 21741 | 35282 | 1.86 | 3.0E-64 | AF248953.1 | NT | Homo sapiens golgi matrix protein GM130 (GOLGA2) mRNA, complete cds |
| 8692 | 21772 | 35303 | 1.48 | 3.0E-64 | BE206521.1 | EST_HUMAN | bb72h12.y1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3047975 5' similar to gb:L08069 DNAJ PROTEIN HOMOLOG 2 (HUMAN); |
| 8692 | 21772 | 35304 | 1.48 | 3.0E-64 | BE206521.1 | EST_HUMAN | bb72h12.y1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3047975 5' similar to gb:L08069 DNAJ PROTEIN HOMOLOG 2 (HUMAN); |
| 9627 | 22682 | 36251 | 1.12 | 3.0E-64 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 9627 | 22682 | 36252 | 1.12 | 3.0E-64 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 9714 | 22779 | 36349 | 0.66 | 3.0E-64 | AW977384.1 | EST_HUMAN | EST389493 MAGE resequences, MAGO Homo sapiens cDNA |
| 9714 | 22779 | 36350 | 0.66 | 3.0E-64 | AW977384.1 | EST_HUMAN | EST389493 MAGE resequences, MAGO Homo sapiens cDNA |
| 11514 | 24571 | 38248 | 1.54 | 3.0E-64 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 11514 | 24571 | 38249 | 1.54 | 3.0E-64 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 11990 | 24975 | 38679 | 2.16 | 3.0E-64 | AL163227.2 | NT | Homo sapiens chromosome 21 segment HS21C027 |
| 1112 | 14277 | 27334 | 1.1 | 2.0E-64 | AA609940.1 | EST_HUMAN | af09d08.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1031151 3' |
| 1428 | 14582 | 27655 | 3.2 | 2.0E-64 | 4757701 | NT | Homo sapiens eIF4E-like cap-binding protein (4EHP) mRNA |
| 2592 | 16717 |  | 1.28 | 2.0E-64 | AI927030.1 | EST_HUMAN | wo87b01.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2462281 3' similar to contains element L1 repetitive element ; |
| 2597 | 15721 | 28840 | 2.4 | 2.0E-64 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 2597 | 15721 | 28841 | 2.4 | 2.0E-64 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 3887 | 17046 | 30045 | 0.98 | 2.0E-64 | AW958145.1 | EST_HUMAN | EST370215 MAGE resequences, MAGE Homo sapiens cDNA |
| 3887 | 17046 | 30046 | 0.98 | 2.0E-64 | AW958145.1 | EST_HUMAN | EST370215 MAGE resequences, MAGE Homo sapiens cDNA |
| 6129 | 19308 | 32649 | 2.28 | 2.0E-64 | AU124387.1 | EST_HUMAN | AU124387 NT2RM2 Homo sapiens cDNA clone NT2RM2002113 5' |
| 6372 | 19541 | 32900 | 1.23 | 2.0E-64 | AF113708.1 | NT | Homo sapiens angiopoietin 4 (ANG4) mRNA, partial cds |
| 6614 | 19774 | 33165 | 5.04 | 2.0E-64 | BF668537.1 | EST_HUMAN | 602123474F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4280395 5' |
| 6724 | 19881 | 33272 | 1.3 | 2.0E-64 | AI078387.1 | EST_HUMAN | oz29b03.x1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1676717 3' |
| 6840 | 19993 | 33402 | 2.96 | 2.0E-64 | M77185.1 | NT | H.sapiens dopamine receptor D5 pseudogene 1, partial cds |
| 7990 | 21040 | 34552 | 0.67 | 2.0E-64 | 11431054 | NT | Homo sapiens ataxin 2-binding protein 1 (A2BP1), mRNA |
| 8868 | 21947 | 35480 | 1.08 | 2.0E-64 | 11434008 | NT | Homo sapiens lymphocyte cytosolic protein 1 (L-plastin) (LCP1), mRNA |
| 8868 | 21947 | 35481 | 1.08 | 2.0E-64 | 11434008 | NT | Homo sapiens lymphocyte cytosolic protein 1 (L-plastin) (LCP1), mRNA |
| 9431 | 22506 | 36071 | 1.09 | 2.0E-64 | AU132570.1 | EST_HUMAN | AU132570 NT2RP4 Homo sapiens cDNA clone NT2RP4000109 5' |

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Table 4
Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10184 | 23221 | 36815 | 0.5 | 2.0E-64 | T06397.1 | EST_HUMAN | EST04286 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBDS88 |
| 10184 | 23221 | 36816 | 0.5 | 2.0E-64 | T06397.1 | EST_HUMAN | EST04286 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBDS88 |
| 11000 | 24079 | 37714 | 2.21 | 2.0E-64 | BF528114.1 | EST_HUMAN | 602042882F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4180556 5' |
| 11306 | 24371 | 38012 | 4.28 | 2.0E-64 | AI922911.1 | EST_HUMAN | wn81b06.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2452211 3' |
| 11306 | 24371 | 38013 | 4.28 | 2.0E-64 | AI922911.1 | EST_HUMAN | wn81b06.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2452211 3' |
| 11509 | 24567 | 38244 | 1.46 | 2.0E-64 | AW864773.1 | EST_HUMAN | PM2-SN0018-220300-002-e12 SN0018 Homo sapiens cDNA |
| 12804 | 25537 |  | 3.59 | 2.0E-64 | H55162.1 | EST_HUMAN | CHR220101 Chromosome 22 exon Homo sapiens cDNA clone C22_132 5' |
| 268 | 13487 | 26517 | 1.39 | 1.0E-64 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 1820 | 14969 | 28061 | 24.22 | 1.0E-64 | AI929419.1 | EST_HUMAN | au60c01.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2519136 3' similar to gb:L21696_cds1 PROTHYMOSIN ALPHA (HUMAN);contains element MSR1 repetitive element ; |
| 3076 | 16252 | 29274 | 0.8 | 1.0E-64 | 4507334 | NT | Homo sapiens synaptojanin 1 (SYNJ1), mRNA |
| 3601 | 16765 | 29781 | 5.47 | 1.0E-64 | AF196779.1 | NT | Homo sapiens transcription factor IGHM enhancer 3, JM11 protein, JM4 protein, JM5 protein, T54 protein, JM10 protein, A4 differentiation-dependent protein, triple LIM domain protein 6, and synaptophysin genes, complete cds; and L-type calcium channel a> |
| 3675 | 16838 | 29848 | 1.14 | 1.0E-64 | AF228527.1 | NT | Homo sapiens TRIAD3 mRNA, partial cds |
| 3675 | 16838 | 29849 | 1.14 | 1.0E-64 | AF228527.1 | NT | Homo sapiens TRIAD3 mRNA, partial cds |
| 4008 | 17165 | 30173 | 0.98 | 1.0E-64 | 8922829 | NT | Homo sapiens hypothetical protein FLJ11026 (FLJ11026), mRNA |
| 10269 | 23304 | 36901 | 1.17 | 1.0E-64 | AA042975.1 | EST_HUMAN | zk53f08.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:486567 3' |
| 12291 | 25216 |  | 4.56 | 1.0E-64 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 2350 | 15481 | 28613 | 1.87 | 9.0E-65 | X89211.1 | NT | H.sapiens DNA for endogenous retroviral like element |
| 2350 | 15481 | 28614 | 1.87 | 9.0E-65 | X89211.1 | NT | H.sapiens DNA for endogenous retroviral like element |
| 11826 | 24815 |  | 19.08 | 9.0E-65 | BF330676.1 | EST_HUMAN | QV4-BT0257-081199-017-e03 BT0257 Homo sapiens cDNA |
| 11799 | 24789 | 38486 | 7.24 | 8.0E-65 | AI929244.1 | EST_HUMAN | au58h07.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2519005 3' similar to SW:RL21_HUMAN P46778 60S RIBOSOMAL PROTEIN L21. ; |
| 10358 | 23393 | 37004 | 2.16 | 7.0E-65 | BE081653.1 | EST_HUMAN | QV2-BT0635-240400-162-c02 BT0635 Homo sapiens cDNA |
| 12095 | 26075 | 38782 | 2.88 | 7.0E-65 | Z21378.1 | EST_HUMAN | HSAAAEAWO TEST1, Human adult Testis tissue Homo sapiens cDNA clone cam test346 (b) |
| 1081 | 14247 | 27304 | 0.81 | 6.0E-65 | AV721898.1 | EST_HUMAN | AV721898 HTB Homo sapiens cDNA clone HTBBZC06 5' |
| 1974 | 15117 |  | 20.04 | 6.0E-65 | AA550929.1 | EST_HUMAN | nj86d10.s1 NCI_CGAP_Pr11 Homo sapiens cDNA clone IMAGE:999379 similar to gb:K03002 60S RIBOSOMAL PROTEIN L32 (HUMAN); |
| 6699 | 19857 | 33247 | 0.8 | 6.0E-65 | AA503892.1 | EST_HUMAN | nh37b07.s1 NCI_CGAP_Pr5 Homo sapiens cDNA clone IMAGE:954517 |
| 8945 | 22024 | 35564 | 2.45 | 6.0E-65 | AW083252.1 | EST_HUMAN | xc07b09.x1 NCI_CGAP_Co21 Homo sapiens cDNA clone IMAGE:2583545 3' similar to TR:Q63306 Q63306 LONG INTERSPERSED REPETITIVE DNA CONTAINING 7 ORF'S. ;contains L1.b2 L1 repetitive element ; |
| 9213 | 22291 | 36833 | 4.63 | 6.0E-65 | AA427878.1 | EST_HUMAN | zw53b06.s1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:773747 3' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9213 | 22291 | 35834 | 4.63 | 6.0E-65 | AA427878.1 | EST_HUMAN | zw53b06.s1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:773747 3' |
| 9275 | 22351 | 35902 | 0.62 | 6.0E-65 | AI085314.1 | EST_HUMAN | qf18h05.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:1750425 3' |
| 9275 | 22351 | 35903 | 0.62 | 6.0E-65 | AI085314.1 | EST_HUMAN | qf18h05.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:1750425 3' |
| 11113 | 24185 | 37817 | 3.58 | 6.0E-65 | BE567816.1 | EST_HUMAN | 601340485F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3682677 5' |
| 11294 | 24360 | 38001 | 4.18 | 6.0E-65 | BF340825.1 | EST_HUMAN | 602037721F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4185677 5' |
| 11788 | 24778 | 38475 | 1.86 | 6.0E-65 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 648 | 13833 | 26859 | 1.89 | 5.0E-65 | AF064604.1 | NT | Homo sapiens KE03 protein mRNA, partial cds |
| 1384 | 14539 | 27613 | 1.92 | 5.0E-65 | 7661951 | NT | Homo sapiens KIAA0156 gene product (KIAA0156), mRNA |
| 1384 | 14539 | 27614 | 1.92 | 5.0E-65 | 7661951 | NT | Homo sapiens KIAA0156 gene product (KIAA0156), mRNA |
| 2223 | 15357 | 28487 | 1.07 | 5.0E-65 | AB033768.1 | NT | Homo sapiens hPAD-colony10 mRNA for peptidylarginine deiminase type I, complete cds |
| 3328 | 16501 | 29519 | 1.79 | 5.0E-65 | 4507848 | NT | Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA |
| 3328 | 16501 | 29520 | 1.79 | 5.0E-65 | 4507848 | NT | Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA |
| 7008 | 20144 | 33563 | 1.38 | 5.0E-65 | 4504606 | NT | Homo sapiens interferon-related developmental regulator 1 (IFRD1), mRNA |
| 10684 | 23718 | 37324 | 1.36 | 5.0E-65 | AF009668.1 | NT | Multiple sclerosis associated retrovirus polyprotein (pol) mRNA, partial cds |
| 198 | 13421 | 26452 | 1.3 | 4.0E-65 | AL120419.1 | EST_HUMAN | DKFZp761G108_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761G108 5' |
| 764 | 13945 | 26991 | 1.23 | 4.0E-65 | AI266468.1 | EST_HUMAN | qm46e01.x1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:1891800 3' |
| 764 | 13945 | 26992 | 1.23 | 4.0E-65 | AI266468.1 | EST_HUMAN | qm46e01.x1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:1891800 3' |
| 1103 | 14268 | 27326 | 1.44 | 4.0E-65 | 4826736 | NT | Homo sapiens fragile X mental retardation, autosomal homolog 1 (FXR1), mRNA |
| 1515 | 14668 | 27751 | 24.91 | 4.0E-65 | 4506636 | NT | Homo sapiens ribosomal protein L34 (RPL34) mRNA |
| 2413 | 15543 | 28670 | 1.02 | 4.0E-65 | BE221469.1 | EST_HUMAN | hu25e04.x1 NCI_CGAP_Mel15 Homo sapiens cDNA clone IMAGE:3171102 3' |
| 2413 | 15543 | 28671 | 1.02 | 4.0E-65 | BE221469.1 | EST_HUMAN | hu25e04.x1 NCI_CGAP_Mel16 Homo sapiens cDNA clone IMAGE:3171102 3' |
| 6284 | 19457 | 32807 | 4.96 | 4.0E-65 | AB033093.1 | NT | Homo sapiens mRNA for KIAA1267 protein, partial cds |
| 6284 | 19457 | 32808 | 4.96 | 4.0E-65 | AB033093.1 | NT | Homo sapiens mRNA for KIAA1267 protein, partial cds |
| 7233 | 20317 | 33760 | 0.66 | 4.0E-65 | AY008372.1 | NT | Homo sapiens oxysterol binding protein-related protein 3 (ORP3) mRNA, complete cds |
| 7266 | 20349 | 33801 | 5.04 | 4.0E-65 | M19879.1 | NT | Human clabindin 27 gene, exons 10 and 11, and L1 and Alu repeats |
| 7368 | 20447 | 33910 | 2.3 | 4.0E-65 | 11545780 | NT | Homo sapiens hypothetical protein FLJ22087 (FLJ22087), mRNA |
| 7721 | 20785 | 34273 | 0.65 | 4.0E-65 | U40372.1 | NT | Human 3',5' cyclic nucleotide phosphodiesterase (HSPDE1C3A) mRNA, partial cds |
| 7721 | 20785 | 34274 | 0.65 | 4.0E-65 | U40372.1 | NT | Human 3',5' cyclic nucleotide phosphodiesterase (HSPDE1C3A) mRNA, partial cds |
| 7993 | 21043 | 34555 | 0.67 | 4.0E-65 | U39656.1 | NT | Human MAP kinase kinase 6 (MKK6) mRNA, complete cds |
| 8025 | 21108 | 34624 | 0.83 | 4.0E-65 | 5453765 | NT | Homo sapiens nel (chicken)-like 2 (NELL2), mRNA |
| 8025 | 21108 | 34625 | 0.83 | 4.0E-65 | 5453765 | NT | Homo sapiens nel (chicken)-like 2 (NELL2), mRNA |
| 9346 | 22422 | 35976 | 0.88 | 4.0E-65 | 11429127 | NT | Homo sapiens Janus kinase 2 (a protein tyrosine kinase) (JAK2), mRNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10808 | 23841 | | 2.12 | 4.0E-65 | AJ277546.2 | NT | Homo sapiens WEE1 gene for protein kinase and partial ZNF143 gene for zinc finger transcription factor |
| 11360 | 24422 | 38078 | 1.92 | 4.0E-65 | AF119846.1 | NT | Homo sapiens PRO1474 mRNA, complete cds |
| 12628 | 14268 | 27326 | 2.03 | 4.0E-65 | 4826735 | NT | Homo sapiens fragile X mental retardation, autosomal homolog 1 (FXR1), mRNA |
| 13201 | 13421 | 26452 | 1.26 | 4.0E-65 | AL120419.1 | EST_HUMAN | DKFZp761G108_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761G108 5' |
| 100 | 13336 | 26364 | 0.65 | 3.0E-65 | 5031976 | NT | Homo sapiens pre-B-cell colony-enhancing factor (PBEF) mRNA |
| 1260 | 15990 | | 18.37 | 3.0E-65 | X78932.1 | NT | H.sapiens HZF9 mRNA for zinc finger protein |
| 1689 | 14741 | 27822 | 4.52 | 3.0E-65 | 4504626 | NT | Homo sapiens immunoglobin superfamily, member 3 (IGSF3) mRNA, and translated products |
| 1868 | 16014 | 28122 | 1.31 | 3.0E-65 | AI000692.1 | EST_HUMAN | ov23f03.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1638173 3' similar to contains element MSR1 repetitive element ; |
| 3350 | 16522 | 29538 | 1.24 | 3.0E-65 | 4504950 | NT | Homo sapiens laminin, beta 1 (LAMB1), mRNA |
| 3815 | 16975 | 29978 | 1.08 | 3.0E-65 | AI000692.1 | EST_HUMAN | ov23f03.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1638173 3' similar to contains element MSR1 repetitive element ; |
| 4773 | 17908 | 30891 | 1.38 | 3.0E-65 | 6912385 | NT | Homo sapiens rab6 GTPase activating protein (GAP and centrosome-associated) (GAPCENA), mRNA |
| 10274 | 23309 | 36905 | 1.61 | 3.0E-65 | BE787366.1 | EST_HUMAN | 601479686F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3882405 5' |
| 11672 | 23900 | 37523 | 8.41 | 3.0E-65 | AA430006.1 | EST_HUMAN | zw65a06.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:781042 5' |
| 3490 | 16657 | 29670 | 7.53 | 2.0E-65 | BF680294.1 | EST_HUMAN | 602166062F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4295966 5' |
| 6666 | 19825 | | 3.73 | 2.0E-65 | BE263373.1 | EST_HUMAN | 601190883F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3534741 5' |
| 7282 | 20365 | 33818 | 20.62 | 2.0E-65 | BF576922.1 | EST_HUMAN | 602134359F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4289295 5' |
| 9046 | 22125 | 35668 | 1.2 | 2.0E-65 | AK024463.1 | NT | Homo sapiens mRNA for FLJ00056 protein, partial cds |
| 9046 | 22125 | 35669 | 1.2 | 2.0E-65 | AK024463.1 | NT | Homo sapiens mRNA for FLJ00056 protein, partial cds |
| 10892 | 23976 | 37608 | 1.46 | 2.0E-65 | 11419247 | NT | Homo sapiens SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily d, member 3 (SMARCD3), mRNA |
| 12241 | 25184 | | 6.27 | 2.0E-65 | AA307904.1 | EST_HUMAN | EST178755 Colon carcinoma (HCC) cell line Homo sapiens cDNA 5' end similar to similar to endogenous retrovirus |
| 12748 | 25906 | | 3.99 | 2.0E-65 | BF246086.1 | EST_HUMAN | 601854033F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4073769 5' |
| 93 | 13328 | | 0.69 | 1.0E-65 | BF125544.1 | EST_HUMAN | 601763488F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:4026501 5' |
| 552 | 13745 | 26770 | 1.43 | 1.0E-65 | 7657495 | NT | Homo sapiens putative Rab5 GDP/GTP exchange factor homologue (RABEX5), mRNA |
| 1889 | 15033 | 28141 | 3.31 | 1.0E-65 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 2098 | 15238 | 28360 | 1.48 | 1.0E-65 | AB040946.1 | NT | Homo sapiens mRNA for KIAA1513 protein, partial cds |
| 3458 | 16625 | 29645 | 0.8 | 1.0E-65 | BE466681.1 | EST_HUMAN | hz24a09.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:3208888 3' |
| 4105 | 17259 | 30259 | 2.07 | 1.0E-65 | 4504082 | NT | Homo sapiens glypican 4 (GPC4) mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4105 | 17259 | 30260 | 2.07 | 1.0E-65 | 4504082 | NT | Homo sapiens glypican 4 (GPC4) mRNA |
| 4323 | 17466 | 30451 | 2.53 | 1.0E-65 | AW029340.1 | EST_HUMAN | wx09c09.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2543152 3' |
| 4323 | 17466 | 30452 | 2.53 | 1.0E-65 | AW029340.1 | EST_HUMAN | wx09c09.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2543152 3' |
| 5143 | 18266 | 31235 | 1.57 | 1.0E-65 | AW238282.1 | EST_HUMAN | xp20c01.x1 NCI_CGAP_HN10 Homo sapiens cDNA clone IMAGE:2740896 3' |
| 5143 | 18266 | 31236 | 1.57 | 1.0E-65 | AW238282.1 | EST_HUMAN | xp20c01.x1 NCI_CGAP_HN10 Homo sapiens cDNA clone IMAGE:2740896 3' |
| 5400 | 18602 | 31672 | 0.86 | 1.0E-65 | BE089509.1 | EST_HUMAN | QV0-BT0702-170400-194-f09 BT0702 Homo sapiens cDNA |
| 5400 | 18602 | 31573 | 0.86 | 1.0E-65 | BE089509.1 | EST_HUMAN | QV0-BT0702-170400-194-f09 BT0702 Homo sapiens cDNA |
| 5594 | 18789 | 31837 | 0.58 | 1.0E-65 | AI243738.1 | EST_HUMAN | qh88h07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1854109 3' similar to TR:Q07823 Q07823 MAC30 PROTEIN ; |
| 8448 | 21529 | 35057 | 1.5 | 1.0E-65 | AW820481.1 | EST_HUMAN | QV2-ST0298-140200-042-f12 ST0298 Homo sapiens cDNA |
| 8448 | 21529 | 35058 | 1.5 | 1.0E-65 | AW820481.1 | EST_HUMAN | QV2-ST0298-140200-042-f12 ST0298 Homo sapiens cDNA |
| 8475 | 21556 | 35088 | 0.66 | 1.0E-65 | BE732118.1 | EST_HUMAN | 601566124F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3841012 5' |
| 8476 | 21556 | 35089 | 0.66 | 1.0E-65 | BE732118.1 | EST_HUMAN | 601566124F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3841012 5' |
| 8514 | 21595 | 35129 | 2.04 | 1.0E-65 | AU141295.1 | EST_HUMAN | AU141295 THYRO1 Homo sapiens cDNA clone THYRO1000356 5' |
| 8514 | 21595 | 35130 | 2.04 | 1.0E-65 | AU141295.1 | EST_HUMAN | AU141295 THYRO1 Homo sapiens cDNA clone THYRO1000356 5' |
| 9041 | 22120 | 35662 | 1.01 | 1.0E-65 | BF698707.1 | EST_HUMAN | 602126239F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4283313 5' |
| 9222 | 22300 | 35843 | 1.33 | 1.0E-65 | AU129040.1 | EST_HUMAN | AU129040 NT2RP2 Homo sapiens cDNA clone NT2RP2004714 5' |
| 9222 | 22300 | 35844 | 1.33 | 1.0E-65 | AU129040.1 | EST_HUMAN | AU129040 NT2RP2 Homo sapiens cDNA clone NT2RP2004714 5' |
| 9231 | 22309 |  | 2.79 | 1.0E-65 | 11431994 | NT | Homo sapiens inositol 1,4,5-triphosphate receptor, type 1 (ITPR1), mRNA |
| 9309 | 22385 | 35937 | 0.55 | 1.0E-65 | 7662227 | NT | Homo sapiens KIAA0656 gene product (KIAA0656), mRNA |
| 9678 | 22640 | 36210 | 6.5 | 1.0E-65 | AI191716.1 | EST_HUMAN | qd56a02.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1733450 3' similar to gb:M29581 ZINC FINGER PROTEIN 8 (HUMAN);contains MER19.t1 MER19 repetitive element ; |
| 10089 | 23127 | 36730 | 1.32 | 1.0E-65 | AU153793.1 | EST_HUMAN | AU153793 NT2RP3 Homo sapiens cDNA clone NT2RP3004016 3' |
| 10509 | 23544 | 37155 | 0.65 | 1.0E-65 | AA069559.1 | EST_HUMAN | zf75a04.r1 Soares_pineal_gland_N3HPG Homo sapiens cDNA clone IMAGE:382734 5' |
| 10796 | 23829 | 37453 | 1.23 | 1.0E-65 | AB037832.1 | NT | Homo sapiens mRNA for KIAA1411 protein, partial cds |
| 10885 | 23969 | 37599 | 1.91 | 1.0E-65 | M26167.1 | NT | Human platelet factor 4 varation 1 (PF4var1) gene, complete cds |
| 11016 | 24095 | 37734 | 9.39 | 1.0E-65 | 4506660 | NT | Homo sapiens ribosomal protein L7a (RPL7A) mRNA |
| 11395 | 24456 | 38118 | 1.9 | 1.0E-65 | BF698707.1 | EST_HUMAN | 602126239F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4283313 5' |
| 11486 | 24545 | 38217 | 2.58 | 1.0E-65 | AI621017.1 | EST_HUMAN | ts76a06.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2237170 3' similar to gb:L15533_rna1 PANCREATITIS ASSOCIATED PROTEIN 1 PRECURSOR (HUMAN); |
| 12292 | 25217 |  | 2.38 | 1.0E-65 | 11418041 | NT | Homo sapiens TNF-inducible protein CG12-1 (CG12-1), mRNA |
| 12391 | 25276 | 32078 | 3.77 | 1.0E-65 | 11418322 | NT | Homo sapiens cadherin EGF LAG seven-pass G-type receptor 1 (CELSR1), mRNA |
| 73 | 13310 | 26334 | 0.9 | 9.0E-66 | AL160311.1 | NT | Novel human gene mapping to chomosome 22 |
| 73 | 13310 | 26335 | 0.9 | 9.0E-66 | AL160311.1 | NT | Novel human gene mapping to chomosome 22 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1385 | 14540 | 27615 | 1.53 | 9.0E-66 | 5031980 | NT | Homo sapiens 26S proteasome-associated pad1 homolog (POH1) mRNA |
| 1385 | 14540 | 27616 | 1.53 | 9.0E-66 | 5031980 | NT | Homo sapiens 26S proteasome-associated pad1 homolog (POH1) mRNA |
| 1513 | 14666 |  | 5.93 | 9.0E-66 | M87299.1 | NT | Human transposon-like element, partial |
| 4007 | 17164 | 30171 | 0.66 | 9.0E-66 | M72393.1 | NT | Human calcium-dependent phospholipid-binding protein (PLA2) mRNA, complete cds |
| 4007 | 17164 | 30172 | 0.66 | 9.0E-66 | M72393.1 | NT | Human calcium-dependent phospholipid-binding protein (PLA2) mRNA, complete cds |
| 11628 | 24708 |  | 1.6 | 7.0E-66 | BE064410.1 | EST_HUMAN | RC4-BT0311-141199-011-h06 BT0311 Homo sapiens cDNA |
| 4485 | 17625 | 30605 | 1.16 | 6.0E-66 | AI924653.1 | EST_HUMAN | wn57h07.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2449597 3' similar to WP:F15G9.4A CE18595 ; |
| 4486 | 17625 | 30606 | 1.16 | 6.0E-66 | AI924653.1 | EST_HUMAN | wn57h07.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2449597 3' similar to WP:F15G9.4A CE18595 ; |
| 4485 | 17625 | 30607 | 1.16 | 6.0E-66 | AI924653.1 | EST_HUMAN | wn57h07.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2449597 3' similar to WP:F15G9.4A CE18595 ; |
| 8629 | 21709 |  | 0.46 | 6.0E-66 | BE178563.1 | EST_HUMAN | PM2-HT0604-030300-001-b06 HT0604 Homo sapiens cDNA |
| 11427 | 24488 | 38152 | 3.22 | 6.0E-66 | X69181.1 | NT | H.sapiens mRNA for ribosomal protein L31 |
| 1398 | 14552 | 27627 | 2.45 | 5.0E-66 | BE064410.1 | EST_HUMAN | RC4-BT0311-141199-011-h06 BT0311 Homo sapiens cDNA |
| 9494 | 22551 | 36113 | 8.4 | 5.0E-66 | 11420557 | NT | Homo sapiens thyroid hormone receptor binding protein (AIB3), mRNA |
| 813 | 13992 | 27046 | 1.8 | 4.0E-66 | 6679816 | NT | Mus musculus fragile X mental retardation syndrome 1 homolog (Fmr1), mRNA |
| 1775 | 14924 | 28018 | 0.97 | 4.0E-66 | AW897798.1 | EST_HUMAN | RC1-NN0063-100500-022-a02 NN0063 Homo sapiens cDNA |
| 2355 | 15486 | 28618 | 5.3 | 4.0E-66 | X89211.1 | NT | H.sapiens DNA for endogenous retroviral like element |
| 2543 | 15668 |  | 3.15 | 4.0E-66 | AJ223364.1 | NT | Homo sapiens germ-line DNA upstream of Jkappa locus |
| 4905 | 18035 |  | 5.02 | 4.0E-66 | 9635487 | NT | Human endogenous retrovirus, complete genome |
| 5668 | 18862 | 32147 | 3.57 | 4.0E-66 | 11428643 | NT | Homo sapiens methylene tetrahydrofolate dehydrogenase (NAD+ dependent), methenyltetrahydrofolate cyclohydrolase (MTHFD2), mRNA |
| 6861 | 19051 | 32358 | 0.87 | 4.0E-66 | AW939119.1 | EST_HUMAN | QV1-DT0069-110200-067-g10 DT0069 Homo sapiens cDNA |
| 6995 | 18514 | 31606 | 4.91 | 4.0E-66 | AW965473.1 | EST_HUMAN | EST377546 MAGE resequences, MAGI Homo sapiens cDNA |
| 7281 | 20364 | 33817 | 7.88 | 4.0E-66 | U78168.1 | NT | Homo sapiens cAMP-regulated guanine nucleotide exchange factor I (cAMP-GEFI) mRNA, complete cds |
| 7807 | 18862 | 32147 | 0.83 | 4.0E-66 | 11428643 | NT | Homo sapiens methylene tetrahydrofolate dehydrogenase (NAD+ dependent), methenyltetrahydrofolate cyclohydrolase (MTHFD2), mRNA |
| 8269 | 21351 | 34867 | 6.14 | 4.0E-66 | 11421638 | NT | Homo sapiens hypothetical protein FLJ20116 (FLJ20116), mRNA |
| 8327 | 21409 | 34936 | 0.7 | 4.0E-66 | X57147.1 | NT | Human endogenous retrovirus pHE.1 (ERV9) |
| 10896 | 23980 | 37612 | 1.49 | 4.0E-66 | BF507493.1 | EST_HUMAN | UI-H-BW1-amr-a-10-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3070747 3' |
| 11660 | 24739 | 38430 | 1.63 | 4.0E-66 | AB023215.1 | NT | Homo sapiens mRNA for KIAA0998 protein, partial cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1458 | 14611 | 27692 | 14.93 | 3.0E-66 | 4502098 | NT | Homo sapiens solute carrier family 25 (mitochondrial carrier; adenine nucleotide translocator), member 5 (SLC25A5), nuclear gene encoding mitochondrial protein, mRNA |
| 1458 | 14611 | 27693 | 14.93 | 3.0E-66 | 4502098 | NT | Homo sapiens solute carrier family 25 (mitochondrial carrier; adenine nucleotide translocator), member 5 (SLC25A5), nuclear gene encoding mitochondrial protein, mRNA |
| 2039 | 15180 | 28290 | 1.04 | 3.0E-66 | N55323.1 | EST_HUMAN | yz27g12.r1 Soares_multiple_sclerosis_2NbHMSP Homo sapiens cDNA clone IMAGE:284326 5' similar to SW:H2B1_TIGCA P35068 HISTONE H2B.1/H2B.2. [2] PIR:B56612 ; |
| 2039 | 15180 | 28291 | 1.04 | 3.0E-66 | N55323.1 | EST_HUMAN | yz27g12.r1 Soares_multiple_sclerosis_2NbHMSP Homo sapiens cDNA clone IMAGE:284326 5' similar to SW:H2B1_TIGCA P35068 HISTONE H2B.1/H2B.2. [2] PIR:B56612 ; |
| 2039 | 15180 | 28292 | 1.04 | 3.0E-66 | N55323.1 | EST_HUMAN | yz27g12.r1 Soares_multiple_sclerosis_2NbHMSP Homo sapiens cDNA clone IMAGE:284326 5' similar to SW:H2B1_TIGCA P35068 HISTONE H2B.1/H2B.2. [2] PIR:B56612 ; |
| 2772 | 15667 | 28997 | 3.44 | 3.0E-66 | 11141880 | NT | Homo sapiens TGF(beta)-induced transcription factor 2 (TGIF2), mRNA |
| 3186 | 16361 | 29367 | 7.29 | 3.0E-66 | 7662223 | NT | Homo sapiens KIAA0649 gene product (KIAA0649), mRNA |
| 5583 | 18778 | 31823 | 0.85 | 3.0E-66 | AB020699.1 | NT | Homo sapiens mRNA for KIAA0892 protein, partial cds |
| 6695 | 18889 | 32180 | 0.65 | 3.0E-66 | M13975.1 | NT | Homo sapiens protein kinase C beta-II type (PRKCB1) mRNA, complete cds |
| 5893 | 19081 | 32391 | 1.72 | 3.0E-66 | 11417946 | NT | Homo sapiens NIPSNAP, C. elegans, homolog 1 (NIPSNAP1), mRNA |
| 5893 | 19081 | 32392 | 1.72 | 3.0E-66 | 11417946 | NT | Homo sapiens NIPSNAP, C. elegans, homolog 1 (NIPSNAP1), mRNA |
| 7585 | 20657 | 34134 | 1.74 | 3.0E-66 | X92211.1 | NT | H.sapiens germline immunoglobulin heavy chain, variable region, (15-1) |
| 9725 | 22780 | 36361 | 0.59 | 3.0E-66 | AK024453.1 | NT | Homo sapiens mRNA for FLJ00045 protein, partial cds |
| 9920 | 22960 | 36547 | 0.52 | 3.0E-66 | 11417118 | NT | Homo sapiens KIAA0433 protein (KIAA0433), mRNA |
| 10278 | 23313 | 36911 | 0.86 | 3.0E-66 | 7019480 | NT | Homo sapiens protocadherin beta 1 (PCDH-beta1), mRNA |
| 10741 | 23774 | 37386 | 0.95 | 3.0E-66 | AF155659.1 | NT | Homo sapiens molybdenum cofactor biosysthesis protein E (MCBPE) mRNA, complete cds |
| 11800 | 24790 | 38487 | 4.55 | 3.0E-66 | 5453949 | NT | Homo sapiens protein phosphatase 2, regulatory subunit B (B56), alpha isoform (PPP2R5A) mRNA |
| 52 | 13291 | 26304 | 1.48 | 2.0E-66 | 7657334 | NT | Homo sapiens Misshapen/NIK-related kinase (MINK), mRNA |
| 52 | 13291 | 26305 | 1.48 | 2.0E-66 | 7657334 | NT | Homo sapiens Misshapen/NIK-related kinase (MINK), mRNA |
| 435 | 13235 | 26235 | 0.87 | 2.0E-66 | 4505524 | NT | Homo sapiens origin recognition complex, subunit 5 (yeast homolog)-like (ORC5L) mRNA, and translated products |
| 435 | 13235 | 26236 | 0.87 | 2.0E-66 | 4505524 | NT | Homo sapiens origin recognition complex, subunit 5 (yeast homolog)-like (ORC5L) mRNA, and translated products |
| 1873 | 15017 | 28126 | 2.02 | 2.0E-66 | AL163301.2 | NT | Homo sapiens chromosome 21 segment HS21C101 |
| 3039 | 16215 | 29238 | 1.07 | 2.0E-66 | X65859.1 | NT | H.sapiens pseudogene for the low affinity IL-8 receptor |
| 3609 | 16773 | 29788 | 0.85 | 2.0E-66 | 8923290 | NT | Homo sapiens hypothetical protein FLJ20309 (FLJ20309), mRNA |
| 3861 | 17021 | 30019 | 0.78 | 2.0E-66 | AL117233.1 | NT | Novel human gene mapping to chomosome 1 |
| 4176 | 17326 | 30317 | 0.69 | 2.0E-66 | AF108389.1 | NT | Homo sapiens sodium/calcium exchanger isoform NaCa3 (NCX1) mRNA, complete cds |

Table 4

Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value. | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4778 | 17913 | 30898 | 13.88 | 2.0E-66 | AJ133267.2 | NT | Homo sapiens HLA-B gene for human leucocyte antigen B |
| 4778 | 17913 | 30899 | 13.88 | 2.0E-66 | AJ133267.2 | NT | Homo sapiens HLA-B gene for human leucocyte antigen B |
| 5937 | 19123 | 32436 | 0.82 | 2.0E-66 | AW968854.1 | EST_HUMAN | EST380930 MAGE resequences, MAGJ Homo sapiens cDNA |
| 5937 | 19123 | 32437 | 0.82 | 2.0E-66 | AW968854.1 | EST_HUMAN | EST380930 MAGE resequences, MAGJ Homo sapiens cDNA |
| 9048 | 22127 | 35671 | 3.57 | 2.0E-66 | N45480.1 | EST_HUMAN | yy59c02.r1 Soares_multiple_sclerosis_2NbHMSP Homo sapiens cDNA clone IMAGE:277826 5' |
| 12637 | 26147 | | 2.84 | 2.0E-66 | 11418318 | NT | Homo sapiens G-2 and S-phase expressed 1 (GTSE1), mRNA |
| 1717 | 14867 | | 1.14 | 1.0E-66 | BE887173.1 | EST_HUMAN | 601508376F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3909931 5' |
| 2959 | 16136 | 29153 | 1.47 | 1.0E-66 | AV717817.1 | EST_HUMAN | AV717817 DCB Homo sapiens cDNA clone DCBADC07 5' |
| 2959 | 16136 | 29154 | 1.47 | 1.0E-66 | AV717817.1 | EST_HUMAN | AV717817 DCB Homo sapiens cDNA clone DCBADC07 5' |
| 4504 | 16136 | 29153 | 4.18 | 1.0E-66 | AV717817.1 | EST_HUMAN | AV717817 DCB Homo sapiens cDNA clone DCBADC07 5' |
| 4504 | 16136 | 29154 | 4.18 | 1.0E-66 | AV717817.1 | EST_HUMAN | AV717817 DCB Homo sapiens cDNA clone DCBADC07 5' |
| 5497 | 18696 | 31712 | 5.97 | 1.0E-66 | BF673088.1 | EST_HUMAN | 602152996F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4294151 5' |
| 5900 | 19089 | 32402 | 0.67 | 1.0E-66 | BE765232.1 | EST_HUMAN | IL2-NT0101-280700-116-E04 NT0101 Homo sapiens cDNA |
| 5900 | 19089 | 32403 | 0.67 | 1.0E-66 | BE765232.1 | EST_HUMAN | IL2-NT0101-280700-116-E04 NT0101 Homo sapiens cDNA |
| 7078 | 20131 | 33548 | 1.53 | 1.0E-66 | BF328623.1 | EST_HUMAN | RC5-BN0193-010900-034-G06 BN0193 Homo sapiens cDNA |
| 8652 | 21732 | 35271 | 1.2 | 1.0E-66 | AA668858.1 | EST_HUMAN | aa80e04.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:827262 3' |
| 9626 | 22681 | 36250 | 0.64 | 1.0E-66 | AA018828.1 | EST_HUMAN | ze57e12.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:363118 5' |
| 10582 | 23617 | 37223 | 0.93 | 1.0E-66 | AV748749.1 | EST_HUMAN | AV748749 NPC Homo sapiens cDNA clone NPCBVA05 5' |
| 10582 | 23617 | 37224 | 0.93 | 1.0E-66 | AV748749.1 | EST_HUMAN | AV748749 NPC Homo sapiens cDNA clone NPCBVA05 5' |
| 11185 | 24254 | 37889 | 2.24 | 1.0E-66 | AF111167.2 | NT | Homo sapiens jun dimerization protein gene, partial cds; cfos gene, complete cds; and unknown gene |
| 12398 | 25278 | | 1.92 | 9.0E-67 | 11418177 | NT | Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA |
| 5034 | 18162 | | 0.91 | 8.0E-67 | M78158.1 | EST_HUMAN | EST01750 Subtracted Hippocampus, Stratagene (cat. #936205) Homo sapiens cDNA clone HHCPN31 similar to L1 repetitive element |
| 391 | 13628 | 26665 | 1.63 | 7.0E-67 | AW162232.1 | EST_HUMAN | au75d02.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2782083 3' similar to gb:M37104 ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN); |
| 1413 | 14567 | 27641 | 2.66 | 7.0E-67 | AA383416.1 | EST_HUMAN | EST96812 Testis I Homo sapiens cDNA 5' end similar to similar to C. elegans hypothetical protein, cosmid ZK353 |
| 1585 | 14737 | 27817 | 1.39 | 7.0E-67 | W85947.1 | EST_HUMAN | zh56b05.r1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:416049 5' |
| 1585 | 14737 | 27818 | 1.39 | 7.0E-67 | W85947.1 | EST_HUMAN | zh56b05.r1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:416049 5' |
| 2089 | 15229 | 28350 | 1.94 | 7.0E-67 | 7657243 | NT | Homo sapiens inositol 1,3,4-triphosphate 5/6 kinase (ITPK1), mRNA |
| 2089 | 15229 | 28351 | 1.94 | 7.0E-67 | 7657243 | NT | Homo sapiens inositol 1,3,4-triphosphate 5/6 kinase (ITPK1), mRNA |
| 2871 | 13628 | 26665 | 1.36 | 7.0E-67 | AW162232.1 | EST_HUMAN | au75d02.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2782083 3' similar to gb:M37104 ATP SYNTHASE COUPLING FACTOR 6, MITOCHONDRIAL PRECURSOR (HUMAN); |

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Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6205 | 19380 | 32730 | 0.98 | 7.0E-67 | 10190695 | NT | Homo sapiens zinc finger protein 304 (ZNF304), mRNA |
| 6400 | 19569 | 32930 | 1.67 | 7.0E-67 | 11425572 | NT | Homo sapiens adaptor-related protein complex 2, beta 1 subunit (AP2B1), mRNA |
| 6400 | 19569 | 32931 | 1.67 | 7.0E-67 | 11425572 | NT | Homo sapiens adaptor-related protein complex 2, beta 1 subunit (AP2B1), mRNA |
| 6863 | 20015 | 33425 | 1.12 | 7.0E-67 | 4885084 | NT | Homo sapiens ATPase, H+ trancporting, lysosomal (vacuolar proton pump) non-catalytic accessory protein 1A (110/116kD) (ATP6N1A), mRNA |
| 7809 | 20864 | 34358 | 0.99 | 7.0E-67 | 11419212 | NT | Homo sapiens mitochondrial carrier family protein (LOC55972), mRNA |
| 7809 | 20864 | 34359 | 0.99 | 7.0E-67 | 11419212 | NT | Homo sapiens mitochondrial carrier family protein (LOC55972), mRNA |
| 8258 | 21340 | 34857 | 0.52 | 7.0E-67 | 4826895 | NT | Homo sapiens phosphodiesterase I/nucleotide pyrophosphatase 3 (PDNP3) mRNA |
| 8518 | 21599 | 35134 | 0.7 | 7.0E-67 | 4557732 | NT | Homo sapiens latent transforming growth factor beta binding protein 2 (LTBP2) mRNA |
| 9132 | 22211 | 35756 | 0.68 | 7.0E-67 | 10835044 | NT | Homo sapiens retinaldehyde dehydrogenase 2 (RALDH2), mRNA |
| 11565 | 24620 |  | 2.42 | 7.0E-67 | 11434579 | NT | Homo sapiens fucosyltransferase 8 (alpha (1,6) fucosyltransferase) (FUT8), mRNA |
| 11973 | 24958 | 38660 | 2.02 | 7.0E-67 | U82486.1 | NT | Human cytochrome oxidase subunit VIa (COX6A1P) pseudogene, complete cds |
| 12168 | 25131 | 38829 | 4.05 | 7.0E-67 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 12168 | 25131 | 38830 | 4.05 | 7.0E-67 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 12664 | 25441 | 32053 | 1.92 | 7.0E-67 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 13106 | 25721 |  | 1.74 | 7.0E-67 | 11421527 | NT | Homo sapiens calcium channel, voltage-dependent, alpha 2/delta subunit 1 (CACNA2D1), mRNA |
| 573 | 13765 | 26788 | 1.09 | 6.0E-67 | X68968.1 | NT | H.sapiens mRNA for acetyl-CoA carboxylase |
| 818 | 13997 | 27051 | 2.4 | 6.0E-67 | Z17227.1 | NT | Homo sapiens mRNA for transmebrane receptor protein |
| 1302 | 14468 | 27624 | 1.07 | 6.0E-67 | Y14320.1 | NT | Homo sapiens PMP69 gene, exons 3,4,5,6 & 7 |
| 3237 | 16411 | 29426 | 1.39 | 6.0E-67 | 4506434 | NT | Homo sapiens retinoblastoma 1 (including osteosarcoma) (RB1) mRNA |
| 3524 | 16689 | 29698 | 1.32 | 6.0E-67 | 4607332 | NT | Homo sapiens Synapsin III (SYN3) mRNA, and translated products |
| 3524 | 16689 | 29699 | 1.32 | 6.0E-67 | 4507332 | NT | Homo sapiens Synapsin III (SYN3) mRNA, and translated products |
| 4243 | 17389 | 30375 | 0.92 | 6.0E-67 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 4243 | 17389 | 30376 | 0.92 | 6.0E-67 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 4827 | 17960 | 30947 | 2.22 | 6.0E-67 | 7657020 | NT | Homo sapiens DKFZp434P211 protein (DKFZP434P211), mRNA |
| 4827 | 17960 | 30948 | 2.22 | 6.0E-67 | 7657020 | NT | Homo sapiens DKFZp434P211 protein (DKFZP434P211), mRNA |
| 13224 | 13765 | 26788 | 2.74 | 6.0E-67 | X68968.1 | NT | H.sapiens mRNA for acetyl-CoA carboxylase |
| 3293 | 16467 | 29486 | 2.26 | 5.0E-67 | AF009660.1 | NT | Homo sapiens T cell receptor beta locus, TCRBV7S3A2 to TCRBV12S2 region |
| 11230 | 24299 |  | 2.17 | 5.0E-67 | BE010038.1 | EST_HUMAN | PM3-BN0176-100400-001-g04 BN0176 Homo sapiens cDNA |
| 1359 | 14514 | 27588 | 1.13 | 4.0E-67 | R90819.1 | EST_HUMAN | yn02d11.r1 Soares adult brain N2b4HB55Y Homo sapiens cDNA clone IMAGE:167253 5' |
| 8211 | 21293 | 34813 | 0.8 | 4.0E-67 | AI733032.1 | EST_HUMAN | oj26c05.x5 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1493288 3' similar to SW:Z33A_HUMAN Q06730 ZINC FINGER PROTEIN 33A ; |
| 8576 | 21657 |  | 1.48 | 4.0E-67 | BF357321.1 | EST_HUMAN | RC0-HT0934-150900-026-c03 HT0934 Homo sapiens cDNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11318 | 24381 |  | 1.76 | 4.0E-67 | AA714294.1 | EST_HUMAN | nw06a01.s1 NCI_CGAP_SS1 Homo sapiens cDNA clone IMAGE:1238472 3' similar to TR:O10385 O10385 PRO-POL-DUTPASE POLYPROTEIN ; |
| 2874 | 13835 | 26862 | 2.03 | 3.0E-67 | AA333768.1 | EST_HUMAN | EST37903 Embryo, 9 week Homo sapiens cDNA 5' end |
| 3542 | 16707 | 29718 | 2.05 | 3.0E-67 | BE064410.1 | EST_HUMAN | RC4-BT0311-141199-011-h06 BT0311 Homo sapiens cDNA |
| 4816 | 17949 | 30934 | 2.96 | 3.0E-67 | AW869159.1 | EST_HUMAN | MR3-SN0066-040500-008-f01 SN0066 Homo sapiens cDNA |
| 4845 | 17978 |  | 1.38 | 3.0E-67 | AL163279.2 | NT | Homo sapiens chromosome 21 segment HS21C079 |
| 8375 | 21456 | 34980 | 1.37 | 3.0E-67 | BF196068.1 | EST_HUMAN | hr81f05.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3134913 3' similar to SW:RHOP_MOUSE Q61085 GTP-RHO BINDING PROTEIN 1 ; |
| 11537 | 24593 |  | 15.42 | 3.0E-67 | AA927874.1 | EST_HUMAN | om18b07.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1541365 3' |
| 193 | 13416 | 26445 | 0.59 | 2.0E-67 | BE348354.1 | EST_HUMAN | hw16g09.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3183136 3' similar to WP:F23H11.9 CE09617 ; |
| 868 | 14044 | 27109 | 5.29 | 2.0E-67 | AW816405.1 | EST_HUMAN | QV4-ST0234-181199-037-f05 ST0234 Homo sapiens cDNA |
| 1129 | 14294 |  | 2.48 | 2.0E-67 | AF167460.1 | NT | Homo sapiens double stranded RNA activated protein kinase (PKR) gene, exons 2a, 2, 3, and 4 |
| 1933 | 15076 | 28179 | 1.23 | 2.0E-67 | BE303037.1 | EST_HUMAN | ba72g05.y1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2905976 5' similar to TR:O94892 O94892 KIAA0798 PROTEIN. ; |
| 1933 | 15076 | 28180 | 1.23 | 2.0E-67 | BE303037.1 | EST_HUMAN | ba72g05.y1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2905976 5' similar to TR:O94892 O94892 KIAA0798 PROTEIN. ; |
| 2458 | 15585 | 28713 | 1.18 | 2.0E-67 | AF309561.1 | NT | Homo sapiens KRAB zinc finger protein ZFQR mRNA, complete cds |
| 2502 | 15629 | 28749 | 1.37 | 2.0E-67 | 4758795 | NT | Homo sapiens developmentally regulated GTP-binding protein 1 (DRG1), mRNA |
| 3557 | 16722 | 29737 | 3.76 | 2.0E-67 | AA625755.1 | EST_HUMAN | zu91g01.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:745392 3' |
| 4109 | 17263 | 30263 | 3.13 | 2.0E-67 | AL163300.2 | NT | Homo sapiens chromosome 21 segment HS21C100 |
| 6197 | 19372 | 32723 | 0.83 | 2.0E-67 | AL049784.1 | NT | Novel human gene mapping to chomosome 13 |
| 6252 | 19426 | 32772 | 4.95 | 2.0E-67 | BF240758.1 | EST_HUMAN | 601875351F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4091893 5' |
| 6425 | 19593 | 32958 | 1.74 | 2.0E-67 | AB051763.1 | NT | Homo sapiens mRNA for NADPH-cytochrome P-450 reductase, complete cds |
| 6425 | 19593 | 32959 | 1.74 | 2.0E-67 | AB051763.1 | NT | Homo sapiens mRNA for NADPH-cytochrome P-450 reductase, complete cds |
| 6779 | 19934 | 33330 | 0.64 | 2.0E-67 | AL120542.1 | EST_HUMAN | DKFZp761A229_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761A229 5' |
| 8755 | 21834 | 35374 | 1.09 | 2.0E-67 | AA334609.1 | EST_HUMAN | EST38850 Embryo, 9 week Homo sapiens cDNA 5' end similar to similar to cerebellin |
| 8755 | 21834 | 35375 | 1.09 | 2.0E-67 | AA334609.1 | EST_HUMAN | EST38850 Embryo, 9 week Homo sapiens cDNA 5' end similar to similar to cerebellin |
| 9197 | 22275 | 35812 | 1.31 | 2.0E-67 | AW602635.1 | EST_HUMAN | RC4-BT0566-170100-011-c07 BT0566 Homo sapiens cDNA |
| 9197 | 22275 | 35813 | 1.31 | 2.0E-67 | AW602635.1 | EST_HUMAN | RC4-BT0566-170100-011-c07 BT0566 Homo sapiens cDNA |
| 9766 | 22763 | 36332 | 0.55 | 2.0E-67 | AV731333.1 | EST_HUMAN | AV731333 HTF Homo sapiens cDNA clone HTFARD03 5' |
| 9910 | 22950 | 36536 | 0.99 | 2.0E-67 | AW293624.1 | EST_HUMAN | UI-H-BI2-ahn-e-10-0-UI.s1 NCI_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2727283 3' |
| 10848 | 23881 | 37501 | 0.53 | 2.0E-67 | AA928089.1 | EST_HUMAN | on86b07.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1563541 3' |
| 11141 | 24213 | 37840 | 1.75 | 2.0E-67 | BF685788.1 | EST_HUMAN | 602140470F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4301705 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11310 | 26230 | | 2.55 | 2.0E-67 | 11436448 | NT | Homo sapiens KIAA0985 protein (KIAA0985), mRNA |
| 11504 | 24562 | 38240 | 2.05 | 2.0E-67 | BE295714.1 | EST_HUMAN | 601175762F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531038 5' |
| 11743 | 23929 | 37555 | 2.44 | 2.0E-67 | BF377169.1 | EST_HUMAN | PM2-TN0103-040900-001-c02 TN0103 Homo sapiens cDNA |
| 12527 | 25988 | 31770 | 2.47 | 2.0E-67 | 11418189 | NT | Homo sapiens thyroid autoantigen 70kD (Ku antigen) (G22P1), mRNA |
| 263 | 13482 | 26514 | 2.37 | 1.0E-67 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 726 | 13908 | 26948 | 0.95 | 1.0E-67 | AA702794.1 | EST_HUMAN | zi90b04.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:448015 3' |
| 4833 | 17966 | 30954 | 0.73 | 1.0E-67 | BF439247.1 | EST_HUMAN | nab61f08.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE: 3' |
| 11268 | 24337 | | 1.47 | 1.0E-67 | BE010038.1 | EST_HUMAN | PM3-BN0176-100400-001-g04 BN0176 Homo sapiens cDNA |
| 12105 | 25085 | | 3.44 | 9.0E-68 | 4506090 | NT | Homo sapiens mitogen-activated protein kinase 6 (MAPK6), mRNA |
| 2245 | 15378 | 28506 | 8.3 | 8.0E-68 | BE870732.1 | EST_HUMAN | 601448558F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3852254 5' |
| 3973 | 17130 | 30133 | 5.75 | 8.0E-68 | AA209456.1 | EST_HUMAN | zq82h10.r1 Stratagene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:648163 5' similar to SW:SAV_SULAC Q07590 SAV PROTEIN. ; |
| 3973 | 17130 | 30134 | 5.75 | 8.0E-68 | AA209456.1 | EST_HUMAN | zq82h10.r1 Stratagene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:648163 5' similar to SW:SAV_SULAC Q07590 SAV PROTEIN. ; |
| 8293 | 21375 | 34895 | 0.56 | 7.0E-68 | AI810505.1 | EST_HUMAN | wb89e03.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2312860 3' |
| 10666 | 23700 | 37310 | 6.43 | 6.0E-68 | 11422086 | NT | Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 2 (BIG2), mRNA |
| 11417 | 24478 | 38143 | 1.31 | 6.0E-68 | AF133901.1 | NT | Homo sapiens killer inhibitory receptor 2-2-1 (KIR221) and killer inhibitory receptor 2-2-2 (KIR222) genes, partial cds |
| 12868 | 25579 | | 2.84 | 6.0E-68 | BE612554.1 | EST_HUMAN | 601452067F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3855761 5' |
| 13165 | 25756 | 31927 | 1.45 | 6.0E-68 | BF310675.1 | EST_HUMAN | 601894635F2 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4124144 5' |
| 825 | 15986 | 27059 | 2 | 5.0E-68 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 825 | 15986 | 27060 | 2 | 5.0E-68 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 842 | 14020 | 27076 | 4.93 | 5.0E-68 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 842 | 14020 | 27077 | 4.93 | 5.0E-68 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 3216 | 16390 | 29401 | 2.99 | 5.0E-68 | AB037852.1 | NT | Homo sapiens mRNA for KIAA1431 protein, partial cds |
| 4297 | 17440 | | 0.64 | 5.0E-68 | 4826967 | NT | Homo sapiens retinoblastoma-binding protein 2 (RBBP2) mRNA |
| 2594 | 15719 | 28836 | 1 | 4.0E-68 | 11421388 | NT | Homo sapiens transcription factor NRF (NRF), mRNA |
| 2594 | 15719 | 28837 | 1 | 4.0E-68 | 11421388 | NT | Homo sapiens transcription factor NRF (NRF), mRNA |
| 5090 | 18218 | | 7.11 | 4.0E-68 | P04406 | SWISSPROT | GLYCERALDEHYDE 3-PHOSPHATE DEHYDROGENASE, LIVER |
| 6085 | 19267 | 32596 | 0.69 | 4.0E-68 | AF157063.1 | NT | Homo sapiens sedlin (SEDL) gene, exon 4 |
| 6912 | 20227 | 33659 | 6.03 | 4.0E-68 | 11055991 | NT | Homo sapiens serine carboxypeptidase 1 precursor protein (HSCP1), mRNA |
| 6912 | 20227 | 33660 | 6.03 | 4.0E-68 | 11055991 | NT | Homo sapiens serine carboxypeptidase 1 precursor protein (HSCP1), mRNA |
| 7859 | 20913 | 34418 | 0.84 | 4.0E-68 | 7661683 | NT | Homo sapiens DKFZP586L0724 protein (DKFZP586L0724), mRNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9240 | 22317 | 35859 | 5.59 | 4.0E-68 | D63479.2 | NT | Homo sapiens mRNA for KIAA0145 protein, partial cds |
| 9240 | 22317 | 35860 | 5.59 | 4.0E-68 | D63479.2 | NT | Homo sapiens mRNA for KIAA0145 protein, partial cds |
| 9380 | 22455 | 36018 | 3.17 | 4.0E-68 | AB040918.1 | NT | Homo sapiens mRNA for KIAA1485 protein, partial cds |
| 11251 | 24320 | 37960 | 1.64 | 4.0E-68 | 4506282 | NT | Homo sapiens protein tyrosine phosphatase type IVA, member 1 (PTP4A1) mRNA |
| 11251 | 24320 | 37961 | 1.64 | 4.0E-68 | 4506282 | NT | Homo sapiens protein tyrosine phosphatase type IVA, member 1 (PTP4A1) mRNA |
| 11434 | 24495 | 38161 | 1.72 | 4.0E-68 | AB040948.1 | NT | Homo sapiens mRNA for KIAA1515 protein, partial cds |
| 12728 | 25485 | 32026 | 1.17 | 4.0E-68 | 11417966 | NT | Homo sapiens SEC14 (S. cerevisiae)-like 2 (SEC14L2), mRNA |
| 3751 | 16912 | 29915 | 3.54 | 3.0E-68 | AF236082.1 | NT | Mus musculus G-protein coupled receptor GPR73 (Gpr73) mRNA, complete cds |
| 9656 | 21099 |  | 3.5 | 3.0E-68 | AI342323.1 | EST_HUMAN | qt38h02.x1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:1950291 3' similar to contains THR.t2 THR repetitive element ; |
| 10720 | 23753 | 37359 | 1.35 | 3.0E-68 | F28784.1 | EST_HUMAN | HSPD18178 HM3 Homo sapiens cDNA clone s3000023D09 |
| 13111 | 25902 |  | 2.83 | 3.0E-68 | AW939485.1 | EST_HUMAN | QV1-DT0072-010200-056-h06 DT0072 Homo sapiens cDNA |
| 2925 | 18474 |  | 29.7 | 2.0E-68 | D00522.1 | NT | Cricetulus longicaudatus mRNA for EF-1 alpha, complete cds |
| 4135 | 17288 | 30283 | 0.79 | 2.0E-68 | BE675766.1 | EST_HUMAN | 7f15f02.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:3294747 3' similar to TR:O80828 O80828 HYPOTHETICAL 88.8 KD PROTEIN. ; |
| 4803 | 17938 | 30926 | 2.33 | 2.0E-68 | AB008681.1 | NT | Homo sapiens gene for activin receptor type IIB, complete cds |
| 7015 | 20151 |  | 9.21 | 2.0E-68 | R45088.1 | EST_HUMAN | yg38g04.s1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:34896 3' |
| 7209 | 20074 | 33486 | 3.81 | 2.0E-68 | BF035316.1 | EST_HUMAN | 601458514F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862034 5' |
| 7527 | 20600 | 34074 | 0.68 | 2.0E-68 | BF336745.1 | EST_HUMAN | IL3-CT0534-180900-273-A01 CT0534 Homo sapiens cDNA |
| 9150 | 22228 | 35772 | 0.56 | 2.0E-68 | Q05859 | SWISSPROT | FORMIN 4 (LIMB DEFORMITY PROTEIN) |
| 11521 | 24577 | 38255 | 1.49 | 2.0E-68 | BF330594.1 | EST_HUMAN | QV0-BT0074-130999-014-g04 BT0074 Homo sapiens cDNA |
| 12285 | 26170 |  | 1.59 | 2.0E-68 | BE897376.1 | EST_HUMAN | 601437367F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3922192 5' |
| 13192 | 25775 |  | 1.32 | 2.0E-68 | AW016803.1 | EST_HUMAN | UI-H-BI0-aam-b-05-0-UI.s1 NCI_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2709824 3' |
| 81 | 13316 | 26344 | 0.83 | 1.0E-68 | 4505222 | NT | Homo sapiens meningioma (disrupted in balanced translocation) 1 (MN1), mRNA |
| 307 | 13523 | 26557 | 16.49 | 1.0E-68 | AW816405.1 | EST_HUMAN | QV4-ST0234-181199-037-f05 ST0234 Homo sapiens cDNA |
| 2326 | 15458 | 28590 | 1.24 | 1.0E-68 | AB011149.1 | NT | Homo sapiens mRNA for KIAA0577 protein, complete cds |
| 2326 | 15458 | 28591 | 1.24 | 1.0E-68 | AB011149.1 | NT | Homo sapiens mRNA for KIAA0577 protein, complete cds |
| 4117 | 17271 | 30270 | 0.9 | 1.0E-68 | BE296032.1 | EST_HUMAN | 601177002F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532344 5' |
| 5140 | 18263 | 31231 | 0.71 | 1.0E-68 | AA897343.1 | EST_HUMAN | al47g12.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1460518 3' |
| 5437 | 18637 | 31616 | 1.92 | 1.0E-68 | 7662349 | NT | Homo sapiens cell recognition molecule Caspr2 (KIAA0868), mRNA |
| 7853 | 20908 | 34412 | 0.75 | 1.0E-68 | 11436716 | NT | Homo sapiens sentrin/SUMO-specific protease (SENP1), mRNA |
| 10385 | 23420 | 37027 | 0.45 | 1.0E-68 | 11419429 | NT | Homo sapiens similar to ectonucleotide pyrophosphatase/phosphodiesterase 3 (H. sapiens) (LOC63214), mRNA |
| 11089 | 24163 | 37799 | 2.16 | 1.0E-68 | 11418869 | NT | Homo sapiens phosphodiesterase 7B (PDE7B), mRNA |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11089 | 24163 | 37800 | 2.16 | 1.0E-68 | 11418869 | NT | Homo sapiens phosphodiesterase 7B (PDE7B), mRNA |
| 11142 | 24214 | 37841 | 2.81 | 1.0E-68 | L76416.1 | NT | Homo sapiens MIF2 suppressor (HSMT3) mRNA, complete cds |
| 11468 | 24527 | 38200 | 1.7 | 1.0E-68 | 11433277 | NT | Homo sapiens myosin IC (MYO1C), mRNA |
| 11580 | 24634 | 38313 | 2.83 | 1.0E-68 | U50319.1 | NT | Human protein kinase C substrate 80K-H (PRKCSH) gene, exon 4-5 |
| 11580 | 24634 | 38314 | 2.83 | 1.0E-68 | U50319.1 | NT | Human protein kinase C substrate 80K-H (PRKCSH) gene, exon 4-5 |
| 11963 | 24948 | 38653 | 1.81 | 1.0E-68 | 11418431 | NT | Homo sapiens CGI-76 protein (LOC51632), mRNA |
| 11963 | 24948 | 38654 | 1.81 | 1.0E-68 | 11418431 | NT | Homo sapiens CGI-76 protein (LOC51632), mRNA |
| 12849 | 13316 | 26344 | 2.53 | 1.0E-68 | 4505222 | NT | Homo sapiens meningioma (disrupted in balanced translocation) 1 (MN1), mRNA |
| 13100 | 26092 | 31661 | 3.05 | 1.0E-68 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 13164 | 25755 |  | 1.88 | 1.0E-68 | 11418213 | NT | Homo sapiens ADP-ribosylation factor GTPase activating protein 1 (ARFGAP1), mRNA |
| 22 | 13260 | 26260 | 2.42 | 9.0E-69 | 5031976 | NT | Homo sapiens pre-B-cell colony-enhancing factor (PBEF) mRNA |
| 22 | 13260 | 26261 | 2.42 | 9.0E-69 | 5031976 | NT | Homo sapiens pre-B-cell colony-enhancing factor (PBEF) mRNA |
| 1053 | 14219 | 27275 | 0.99 | 9.0E-69 | 5031980 | NT | Homo sapiens 26S proteasome-associated pad1 homolog (POH1) mRNA |
| 1053 | 14219 | 27276 | 0.99 | 9.0E-69 | 5031980 | NT | Homo sapiens 26S proteasome-associated pad1 homolog (POH1) mRNA |
| 4246 | 17392 | 30380 | 0.6 | 9.0E-69 | 4757867 | NT | Homo sapiens v-raf murine sarcoma viral oncogene homolog B1 (BRAF) mRNA |
| 4266 | 17411 | 30397 | 0.89 | 9.0E-69 | 4504010 | NT | Homo sapiens glutamate-cysteine ligase (gamma-glutamylcysteine synthetase), regulatory (30.8kD) (GLCLR) mRNA |
| 11128 | 24200 |  | 7.86 | 9.0E-69 | AU117241.1 | EST_HUMAN | AU117241 HEMBA1 Homo sapiens cDNA clone HEMBA1000968 5' |
| 3473 | 16640 |  | 1.28 | 8.0E-69 | AJ237744.1 | NT | Homo sapiens RIBIIR gene (partial), exon 12 |
| 6482 | 19649 | 33011 | 4.44 | 7.0E-69 | 9966912 | NT | Homo sapiens actin-related protein 3-beta (ARP3BETA), mRNA |
| 8047 | 21130 | 34649 | 1.85 | 6.0E-69 | AI192764.1 | EST_HUMAN | qe62h01.x1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:1743601 3' similar to gb:L11566 60S RIBOSOMAL PROTEIN L18 (HUMAN); |
| 8047 | 21130 | 34650 | 1.85 | 6.0E-69 | AI192764.1 | EST_HUMAN | qe62h01.x1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:1743601 3' similar to gb:L11566 60S RIBOSOMAL PROTEIN L18 (HUMAN); |
| 9174 | 22252 | 35795 | 1.05 | 5.0E-69 | AA826039.1 | EST_HUMAN | od60a03.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1372300 3' |
| 533 | 13726 |  | 1.18 | 4.0E-69 | AI873630.1 | EST_HUMAN | wm26h11.x1 NCI_CGAP_Ut4 Homo sapiens cDNA clone IMAGE:2437125 3' |
| 5881 | 25812 | 32378 | 1.53 | 4.0E-69 | BE561063.1 | EST_HUMAN | 601344705F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3677641 5' |
| 6966 | 19152 | 32467 | 4.62 | 4.0E-69 | AI764973.1 | EST_HUMAN | wh57b06.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2384819 3' similar to TR:O55137 O55137 ACYL-COA THIOESTERASE. ; |
| 6764 | 19920 | 33315 | 3.17 | 4.0E-69 | 4557732 | NT | Homo sapiens latent transforming growth factor beta binding protein 2 (LTBP2) mRNA |
| 6764 | 19920 | 33316 | 3.17 | 4.0E-69 | 4557732 | NT | Homo sapiens latent transforming growth factor beta binding protein 2 (LTBP2) mRNA |
| 9115 | 22194 | 35739 | 0.55 | 4.0E-69 | AU119634.1 | EST_HUMAN | AU119634 HEMBA1 Homo sapiens cDNA clone HEMBA1006283 5' |
| 397 | 13634 | 26672 | 5.24 | 3.0E-69 | BE258012.1 | EST_HUMAN | 601110371F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3351352 5' |
| 627 | 13812 | 26834 | 2.78 | 3.0E-69 | AF221712.1 | NT | Homo sapiens Smad- and Olf-interacting zinc finger protein mRNA, partial cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1586 | 14738 | | 1.12 | 3.0E-69 | T80514.1 | EST_HUMAN | yd08a02.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:24880 5' similar to SP:A48836 A48836 SPEGF III=EGF REPEAT-CONTAINING FIBROPELLIN-LIKE PROTEIN - SEA URCHIN ; |
| 2449 | 15577 | | 2.18 | 3.0E-69 | 5729910 | NT | Homo sapiens lymphatic vessel endothelial hyaluronan receptor 1 (LYVE-1) mRNA |
| 5357 | 18483 | 38823 | 1.37 | 3.0E-69 | 11418185 | NT | Homo sapiens aconitase 2, mitochondrial (ACO2), mRNA |
| 7629 | 20602 | 34076 | 0.76 | 3.0E-69 | AF095703.1 | NT | Homo sapiens short chain L-3-hydroxyacyl-CoA dehydrogenase precursor (HADHSC) gene, nuclear gene encoding mitochondrial protein, complete cds |
| 7578 | 20650 | 34128 | 1.74 | 3.0E-69 | U52351.1 | NT | Homo sapiens arm-repeat protein NPRAP/neurojungin (CTNND2) mRNA, partial cds |
| 7724 | 20788 | 34277 | 8.4 | 3.0E-69 | AF268075.1 | NT | Homo sapiens TRAF6-binding protein T6BP mRNA, complete cds |
| 8567 | 21648 | 35190 | 1.33 | 3.0E-69 | AW138646.1 | EST_HUMAN | UI-H-BI1-acw-g-01-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2715840 3' |
| 8967 | 22046 | | 0.74 | 3.0E-69 | AA376399.1 | EST_HUMAN | EST88807 HSC172 cells II Homo sapiens cDNA 5' end similar to similar to ribosomal protein S18 |
| 9613 | 22668 | 36238 | 1.74 | 3.0E-69 | X13223.1 | NT | H.sapiens mRNA for N-acetylglucosamide-(beta 1-4)-galactosyltransferase |
| 9733 | 22798 | 36372 | 3.15 | 3.0E-69 | X06233.1 | NT | Human mRNA for calcium-binding protein in macrophages (MRP-14) macrophage migration inhibitory factor (MIF)-related protein |
| 10034 | 23072 | 36672 | 0.56 | 3.0E-69 | 5730036 | NT | Homo sapiens SEC10 (S. cerevisiae)-like 1 (SEC10L1), mRNA |
| 10877 | 23962 | 37590 | 2.74 | 3.0E-69 | 11432120 | NT | Homo sapiens ribosomal protein S15a (RPS15A), mRNA |
| 11080 | 24155 | | 7.68 | 3.0E-69 | AA376399.1 | EST_HUMAN | EST88807 HSC172 cells II Homo sapiens cDNA 5' end similar to similar to ribosomal protein S18 |
| 12112 | 25092 | 38795 | 1.77 | 3.0E-69 | AB011541.1 | NT | Homo sapiens mRNA for MEGF8, partial cds |
| 12112 | 25092 | 38796 | 1.77 | 3.0E-69 | AB011541.1 | NT | Homo sapiens mRNA for MEGF8, partial cds |
| 12305 | 25223 | | 3.1 | 3.0E-69 | 11419157 | NT | Homo sapiens HGC6.2 protein (HGC6.2), mRNA |
| 131 | 13612 | 26651 | 1.09 | 2.0E-69 | AF160252.1 | NT | Homo sapiens KIAA0553 protein gene, complete cds; and alphaIIb protein gene, partial cds |
| 131 | 13612 | 26652 | 1.09 | 2.0E-69 | AF160252.1 | NT | Homo sapiens KIAA0553 protein gene, complete cds; and alphaIIb protein gene, partial cds |
| 417 | 13612 | 26651 | 4.42 | 2.0E-69 | AF160252.1 | NT | Homo sapiens KIAA0553 protein gene, complete cds; and alphaIIb protein gene, partial cds |
| 417 | 13612 | 26652 | 4.42 | 2.0E-69 | AF160252.1 | NT | Homo sapiens KIAA0553 protein gene, complete cds; and alphaIIb protein gene, partial cds |
| 1934 | 15077 | 28181 | 1.79 | 2.0E-69 | BE257857.1 | EST_HUMAN | 601109444F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350074 5' |
| 2906 | 16084 | | 4.14 | 2.0E-69 | AA431157.1 | EST_HUMAN | zw71g02.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:781682 5' |
| 8751 | 21830 | 35368 | 0.95 | 2.0E-69 | AA114270.1 | EST_HUMAN | zm29g01.r1 Stratagene pancreas (#937208) Homo sapiens cDNA clone IMAGE:527088 5' |
| 1680 | 14832 | | 1 | 1.0E-69 | BF330124.1 | EST_HUMAN | RC0-BN0305-200600-031-f05 BN0305 Homo sapiens cDNA |
| 1739 | 14888 | 27980 | 2.4 | 1.0E-69 | AF053768.1 | NT | Rattus norvegicus brain specific cortactin-binding protein CBP90 mRNA, partial cds |
| 5137 | 18260 | | 0.63 | 1.0E-69 | BE409094.1 | EST_HUMAN | 601301284F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3635781 5' |
| 6175 | 19351 | 32697 | 0.83 | 1.0E-69 | BE902501.1 | EST_HUMAN | 601675788F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3958532 5' |
| 6175 | 19351 | 32698 | 0.83 | 1.0E-69 | BE902501.1 | EST_HUMAN | 601675788F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3958532 5' |
| 6738 | 19894 | 33285 | 4.36 | 1.0E-69 | AW393969.1 | EST_HUMAN | QV0-TT0010-031199-045-c07 TT0010 Homo sapiens cDNA |
| 6958 | 20271 | 33709 | 1.22 | 1.0E-69 | 7662263 | NT | Homo sapiens KIAA0716 gene product (KIAA0716), mRNA |

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6958 | 20271 | 33710 | 1.22 | 1.0E-69 | 7662263 | NT | Homo sapiens KIAA0716 gene product (KIAA0716), mRNA |
| 6976 | 20204 | 33631 | 2.91 | 1.0E-69 | AB032973.1 | NT | Homo sapiens mRNA for KIAA1147 protein, partial cds |
| 6976 | 20204 | 33632 | 2.91 | 1.0E-69 | AB032973.1 | NT | Homo sapiens mRNA for KIAA1147 protein, partial cds |
| 7021 | 20157 | 33578 | 0.61 | 1.0E-69 | BE531007.1 | EST_HUMAN | 601278532F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3610614 5' |
| 7021 | 20157 | 33579 | 0.61 | 1.0E-69 | BE531007.1 | EST_HUMAN | 601278532F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3610614 5' |
| 10377 | 23412 | 37020 | 5.01 | 1.0E-69 | BE245070.1 | EST_HUMAN | TCBAP1E2678 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP2678 |
| 10377 | 23412 | 37021 | 5.01 | 1.0E-69 | BE245070.1 | EST_HUMAN | TCBAP1E2678 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP2678 |
| 10625 | 23659 | 37268 | 0.9 | 1.0E-69 | BF528429.1 | EST_HUMAN | 602043782F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4181325 5' |
| 11112 | 24184 |  | 36.41 | 1.0E-69 | 4504918 | NT | Homo sapiens keratin 8 (KRT8) mRNA |
| 12237 | 25181 | 38352 | 1.88 | 1.0E-69 | BF125887.1 | EST_HUMAN | 601762902F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:4025785 5' |
| 12673 | 25449 |  | 3.4 | 1.0E-69 | AI809994.1 | EST_HUMAN | wf64e08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2360390 3' similar to contains Alu repetitive element;contains element MIR repetitive element ; |
| 2409 | 16061 | 28667 | 1.56 | 8.0E-70 | AA230303.1 | EST_HUMAN | nc13d12.r1 NCI_CGAP_Pr1 Homo sapiens cDNA clone IMAGE:1008023 |
| 4493 | 17633 | 30615 | 1.64 | 8.0E-70 | L77566.1 | NT | Homo sapiens DGS-I mRNA, 3' end |
| 1856 | 15002 | 28108 | 2.42 | 7.0E-70 | AI497807.1 | EST_HUMAN | tm89f01.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2165305 3' |
| 1856 | 15002 | 28109 | 2.42 | 7.0E-70 | AI497807.1 | EST_HUMAN | tm89f01.x1 NCI_CGAP_Brn26 Homo sapiens cDNA clone IMAGE:2165305 3' |
| 1984 | 15127 | 28229 | 1.67 | 7.0E-70 | AA282955.1 | EST_HUMAN | zl15h04.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:713239 5' |
| 2126 | 15261 |  | 5.13 | 7.0E-70 | 5031668 | NT | Homo sapiens tumor suppressor deleted in oral cancer-related 1 (DOC-1R) mRNA |
| 4340 | 17483 | 30465 | 4.29 | 7.0E-70 | 4757723 | NT | Homo sapiens adenylate cyclase 3 (ADCY3) mRNA |
| 5600 | 18795 | 31844 | 5.4 | 7.0E-70 | AB032369.1 | NT | Homo sapiens MIST mRNA, partial cds |
| 5600 | 18795 | 31845 | 5.4 | 7.0E-70 | AB032369.1 | NT | Homo sapiens MIST mRNA, partial cds |
| 7064 | 20117 | 33531 | 1.9 | 7.0E-70 | AJ000052.1 | NT | Homo sapiens gene encoding splicing factor SF1, exons 2-8 |
| 7945 | 20995 | 34506 | 0.64 | 7.0E-70 | 11417306 | NT | Homo sapiens titin immunoglobulin domain protein (myotilin) (TTID), mRNA |
| 8626 | 21706 | 35242 | 2.55 | 7.0E-70 | AB037715.1 | NT | Homo sapiens mRNA for KIAA1294 protein, partial cds |
| 8626 | 21706 | 35243 | 2.55 | 7.0E-70 | AB037715.1 | NT | Homo sapiens mRNA for KIAA1294 protein, partial cds |
| 8919 | 21998 | 35538 | 3.8 | 7.0E-70 | M74099.1 | NT | Human displacement protein (CCAAT) mRNA |
| 8919 | 21998 | 35539 | 3.8 | 7.0E-70 | M74099.1 | NT | Human displacement protein (CCAAT) mRNA |
| 9358 | 22433 | 35991 | 5.59 | 7.0E-70 | X59841.1 | NT | Human PBX3 mRNA |
| 9358 | 22433 | 35992 | 5.59 | 7.0E-70 | X59841.1 | NT | Human PBX3 mRNA |
| 9636 | 21078 | 34590 | 2.88 | 7.0E-70 | AF153715.1 | NT | Homo sapiens phospholipid scramblase 1 gene, exon 1 and 5' flanking region |
| 9660 | 21102 | 34617 | 1.7 | 7.0E-70 | 11525964 | NT | Homo sapiens karyopherin beta 2b, transportin (TRN2), mRNA |
| 9660 | 21102 | 34618 | 1.7 | 7.0E-70 | 11525964 | NT | Homo sapiens karyopherin beta 2b, transportin (TRN2), mRNA |

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|---|---|---|---|---|---|---|---|
| 9857 | 22897 | 36480 | 0.53 | 7.0E-70 | 4557624 | NT | Homo sapiens glutamate-cysteine ligase (gamma-glutamylcysteine synthetase), catalytic (72.8kD) (GLCLC) mRNA |
| 10505 | 23540 | 37149 | 0.85 | 7.0E-70 | AB036429.1 | NT | Homo sapiens NDST4 mRNA for N-deacetylase/N-sulfotransferase 4, complete cds |
| 10505 | 23540 | 37150 | 0.85 | 7.0E-70 | AB036429.1 | NT | Homo sapiens NDST4 mRNA for N-deacetylase/N-sulfotransferase 4, complete cds |
| 11329 | 24392 | 38039 | 1.77 | 7.0E-70 | 11429685 | NT | Homo sapiens spastic paraplegia 4 (autosomal dominant; spastin) (SPG4), mRNA |
| 11329 | 24392 | 38040 | 1.77 | 7.0E-70 | 11429685 | NT | Homo sapiens spastic paraplegia 4 (autosomal dominant; spastin) (SPG4), mRNA |
| 11897 | 24885 | 38583 | 2.37 | 7.0E-70 | 11526319 | NT | Homo sapiens HIR (histone cell cycle regulation defective, S. cerevisiae) homolog A (HIRA), mRNA |
| 11897 | 24885 | 38584 | 2.37 | 7.0E-70 | 11526319 | NT | Homo sapiens HIR (histone cell cycle regulation defective, S. cerevisiae) homolog A (HIRA), mRNA |
| 894 | 14070 | 27135 | 2.51 | 6.0E-70 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 2205 | 15339 | 28466 | 2.29 | 6.0E-70 | M30938.1 | NT | Human Ku (p70/p80) subunit mRNA, complete cds |
| 4629 | 17765 | 30747 | 0.7 | 6.0E-70 | AF154121.1 | NT | Homo sapiens sodium-dependent high-affinity dicarboxylate transporter (NADC3) mRNA, complete cds |
| 2618 | 16066 | 28854 | 1.78 | 5.0E-70 | 7662307 | NT | Homo sapiens KIAA0792 gene product (KIAA0792), mRNA |
| 2618 | 16066 | 28855 | 1.78 | 5.0E-70 | 7662307 | NT | Homo sapiens KIAA0792 gene product (KIAA0792), mRNA |
| 12247 | 25188 |  | 5 | 5.0E-70 | BE166034.1 | EST_HUMAN | MR3-HT0487-150200-115-a06 HT0487 Homo sapiens cDNA |
| 6894 | 20045 | 33454 | 1.03 | 4.0E-70 | T06037.1 | EST_HUMAN | EST03926 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBDN25 |
| 6933 | 20248 | 33682 | 1.84 | 4.0E-70 | AW793226.1 | EST_HUMAN | CM4-UM0003-010300-105-g08 UM0003 Homo sapiens cDNA |
| 6933 | 20248 | 33683 | 1.84 | 4.0E-70 | AW793226.1 | EST_HUMAN | CM4-UM0003-010300-105-g08 UM0003 Homo sapiens cDNA |
| 1619 | 14771 | 27853 | 1.71 | 3.0E-70 | BE071796.1 | EST_HUMAN | RC0-BT0522-071299-011-a12 BT0522 Homo sapiens cDNA |
| 1619 | 14771 | 27854 | 1.71 | 3.0E-70 | BE071796.1 | EST_HUMAN | RC0-BT0522-071299-011-a12 BT0522 Homo sapiens cDNA |
| 5270 | 18389 | 31357 | 1.11 | 3.0E-70 | AJ271736.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 2/2 |
| 5737 | 18930 | 32227 | 0.59 | 3.0E-70 | 11430988 | NT | Homo sapiens plakophilin 4 (PKP4), mRNA |
| 5737 | 18930 | 32228 | 0.59 | 3.0E-70 | 11430988 | NT | Homo sapiens plakophilin 4 (PKP4), mRNA |
| 6066 | 19248 | 32575 | 1 | 3.0E-70 | AI831975.1 | EST_HUMAN | wh90d03.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2388005 3' |
| 6503 | 19669 | 33033 | 1.69 | 3.0E-70 | BF685233.1 | EST_HUMAN | 602141561F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4302806 5' |
| 6503 | 19669 | 33034 | 1.69 | 3.0E-70 | BF685233.1 | EST_HUMAN | 602141561F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4302806 5' |
| 10314 | 23349 | 36955 | 0.62 | 3.0E-70 | BE502973.1 | EST_HUMAN | hz81h02.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3214419 3' |
| 39 | 13277 | 26283 | 1.03 | 2.0E-70 | AF012872.1 | NT | Homo sapiens phosphatidylinositol 4-kinase 230 (pi4K230) mRNA, complete cds |
| 707 | 13890 | 26923 | 15.24 | 2.0E-70 | N42161.1 | EST_HUMAN | yy07a10.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:270522 5' similar to SW:D3HI_RAT P29266 3-HYDROXYISOBUTYRATE DEHYDROGENASE PRECURSOR ; |

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 707 | 13890 | 26924 | 15.24 | 2.0E-70 | N42161.1 | EST_HUMAN | yy07a10.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:270522 5' similar to SW:D3HI_RAT P29266 3-HYDROXYISOBUTYRATE DEHYDROGENASE PRECURSOR ; |
| 723 | 13905 | 26947 | 1.85 | 2.0E-70 | AI246899.1 | EST_HUMAN | qx51h01.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2004913 3' |
| 1046 | 14212 | 27269 | 1.36 | 2.0E-70 | 8923669 | NT | Homo sapiens hypothetical protein FLJ20758 (FLJ20758), mRNA |
| 1211 | 14372 | 27432 | 2.16 | 2.0E-70 | 7661983 | NT | Homo sapiens KIAA0193 gene product (KIAA0193), mRNA |
| 1211 | 14372 | 27433 | 2.16 | 2.0E-70 | 7661983 | NT | Homo sapiens KIAA0193 gene product (KIAA0193), mRNA |
| 1441 | 14594 | 27669 | 1.23 | 2.0E-70 | BE467311.1 | EST_HUMAN | hz64c12.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3212758 3' |
| 1688 | 14840 | 27924 | 1.07 | 2.0E-70 | AA180093.1 | EST_HUMAN | zp45h05.r1 Stratagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:612441 5' similar to TR:G1041293 G1041293 D2085.5 ; |
| 1688 | 14840 | 27925 | 1.07 | 2.0E-70 | AA180093.1 | EST_HUMAN | zp45h05.r1 Stratagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:612441 5' similar to TR:G1041293 G1041293 D2085.5 ; |
| 1781 | 14930 | 28023 | 4.92 | 2.0E-70 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 2394 | 15525 | | 9.42 | 2.0E-70 | AA064010.1 | EST_HUMAN | zf48g04.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:380214 5' similar to SW:GAG_HTL1A P03345 GAG POLYPROTEIN ; |
| 3923 | 17082 | 30078 | 0.71 | 2.0E-70 | AL133207.2 | NT | Novel human gene mapping to chomosome X |
| 4160 | 17311 | 30307 | 5.88 | 2.0E-70 | M69181.1 | NT | Human nonmuscle myosin heavy chain-B (MYH10) mRNA, partial cds |
| 5632 | 18826 | 31901 | 8.42 | 2.0E-70 | X72662.1 | NT | H.sapiens gene for schwannomin (CS8) |
| 5632 | 18826 | 31902 | 8.42 | 2.0E-70 | X72662.1 | NT | H.sapiens gene for schwannomin (CS8) |
| 6333 | 19504 | 32862 | 1.23 | 2.0E-70 | AF310105.1 | NT | Homo sapiens NALP1 mRNA, complete cds |
| 6771 | 19926 | 33321 | 2.66 | 2.0E-70 | D12625.1 | NT | Human mRNA for NF1 protein isoform (neurofibromin isoform), complete cds |
| 6806 | 19960 | 33362 | 10.35 | 2.0E-70 | AF123074.1 | NT | Homo sapiens cytoplasmic dynein intermediate chain 1 mRNA, complete cds |
| 6806 | 19960 | 33363 | 10.35 | 2.0E-70 | AF123074.1 | NT | Homo sapiens cytoplasmic dynein intermediate chain 1 mRNA, complete cds |
| 7136 | 18562 | 31477 | 1.5 | 2.0E-70 | 11422642 | NT | Homo sapiens sialyltransferase 6 (N-acetyllacosaminide alpha 2,3-sialyltransferase) (SIAT6), mRNA |
| 8103 | 21185 | 34704 | 2.81 | 2.0E-70 | M21741.1 | NT | Human guanine nucleotide-binding protein alpha-subunit gene (G-s-alpha), exons 4 and 5 |
| 8417 | 21498 | 35030 | 0.66 | 2.0E-70 | 11423599 | NT | Homo sapiens amylo-1,6-glucosidase, 4-alpha-glucanotransferase (glycogen debranching enzyme, glycogen storage disease type III) (AGL), mRNA |
| 8860 | 21939 | | 1.34 | 2.0E-70 | H47959.1 | EST_HUMAN | yp79g02.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:193682 5' |
| 9370 | 22445 | 36007 | 1.14 | 2.0E-70 | 11526355 | NT | Homo sapiens dynactin p62 subunit (LOC51164), mRNA |
| 10342 | 23377 | 36988 | 1.26 | 2.0E-70 | AF123303.1 | NT | Homo sapiens calcium-binding transporter mRNA, partial cds |
| 11324 | 24387 | 38031 | 3.39 | 2.0E-70 | 8923420 | NT | Homo sapiens hypothetical protein FLJ20450 (FLJ20450), mRNA |
| 11324 | 24387 | 38032 | 3.39 | 2.0E-70 | 8923420 | NT | Homo sapiens hypothetical protein FLJ20450 (FLJ20450), mRNA |
| 11940 | 24926 | 38628 | 7.78 | 2.0E-70 | 4503520 | NT | Homo sapiens eukaryotic translation initiation factor 3, subunit 6 (48kD) (EIF3S6) mRNA |
| 12662 | 25439 | 32050 | 2.42 | 2.0E-70 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |

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|---|---|---|---|---|---|---|---|
| 12662 | 25439 | 32051 | 2.42 | 2.0E-70 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 3480 | 16647 | | 3.72 | 1.0E-70 | 4507476 | NT | Homo sapiens transglutaminase 3 (E polypeptide, protein-glutamine-gamma-glutamyltransferase) (TGM3) mRNA |
| 9480 | 22537 | | 0.64 | 1.0E-70 | W85795.1 | EST_HUMAN | zh55g05.r1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:416024 5' |
| 10003 | 23041 | | 0.88 | 1.0E-70 | AA442292.1 | EST_HUMAN | zv54c03.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:757444 5' |
| 11175 | 24244 | 37877 | 7.61 | 1.0E-70 | AV738538.1 | EST_HUMAN | AV738538 CB Homo sapiens cDNA clone CBLBGB10 5' |
| 6065 | 19247 | 32573 | 6.03 | 9.0E-71 | AI143870.1 | EST_HUMAN | qe04f01.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1738009 3' similar to TR:O14045 O14045 PHOSPHOTRANSFERASE. ; |
| 6065 | 19247 | 32574 | 6.03 | 9.0E-71 | AI143870.1 | EST_HUMAN | qe04f01.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1738009 3' similar to TR:O14045 O14045 PHOSPHOTRANSFERASE. ; |
| 7175 | 20308 | 33751 | 2.05 | 9.0E-71 | AI654903.1 | EST_HUMAN | wb52c05.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2309288 3' similar to TR:P97213 P97213 CDU2, CDU1, TCDD, TCDB, TCDE, TCDA, TCDC, CDD1, CDD2, CDD3, AND CDD4 GENES. ; |
| 11813 | 20308 | 33751 | 3.47 | 9.0E-71 | AI654903.1 | EST_HUMAN | wb52c05.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2309288 3' similar to TR:P97213 P97213 CDU2, CDU1, TCDD, TCDB, TCDE, TCDA, TCDC, CDD1, CDD2, CDD3, AND CDD4 GENES. ; |
| 9270 | 22346 | | 2.88 | 8.0E-71 | AA171451.1 | EST_HUMAN | zp21d11.r1 Stratagene neuroepithelium (#937231) Homo sapiens cDNA clone IMAGE:610101 5' similar to TR:G1143061 G1143061 STRAIN XA34 POL ; |
| 10828 | 23861 | 37484 | 0.53 | 8.0E-71 | AW273820.1 | EST_HUMAN | xv24d01.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2814049 3' similar to TR:O54730 O54730 TRANSPLANTABILITY ASSOCIATED PROTEIN 1 ; |
| 7533 | 20606 | 34081 | 7.86 | 7.0E-71 | AA442230.1 | EST_HUMAN | zv60h06.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:768075 5' |
| 8877 | 21956 | 35491 | 1.34 | 7.0E-71 | AA705457.1 | EST_HUMAN | zj91a06.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:462226 3' |
| 11614 | 24665 | 38353 | 2.2 | 7.0E-71 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 2284 | 15416 | 28548 | 7.11 | 5.0E-71 | AF056322.1 | NT | Homo sapiens SP100-HMG nuclear autoantigen (SP100) mRNA, complete cds |
| 4235 | 17382 | 30371 | 1.18 | 5.0E-71 | AW816405.1 | EST_HUMAN | QV4-ST0234-181199-037-f05 ST0234 Homo sapiens cDNA |
| 6002 | 19187 | 32506 | 1.59 | 5.0E-71 | 4502740 | NT | Homo sapiens cyclin-dependent kinase 6 (CDK6) mRNA |
| 6801 | 19956 | 33356 | 1.4 | 5.0E-71 | 11641408 | NT | Homo sapiens keratin, hair, acidic, 7 (KRTHA7), mRNA |
| 7060 | 20113 | 33528 | 0.94 | 5.0E-71 | 7662209 | NT | Homo sapiens KIAA0623 gene product (KIAA0623), mRNA |
| 7296 | 20378 | 33836 | 0.82 | 5.0E-71 | 11431590 | NT | Homo sapiens protein kinase C, beta 1 (PRKCB1), mRNA |
| 7679 | 20744 | 34225 | 1.79 | 5.0E-71 | M38106.1 | NT | Human neurofibromatosis protein type 1 mRNA, 3' end of cds |
| 7884 | 20936 | 34442 | 0.8 | 5.0E-71 | 11526445 | NT | Homo sapiens MAGUK protein p55T; Protein Associated with Lins 2 (LOC51678), mRNA |
| 7912 | 20963 | 34471 | 20.85 | 5.0E-71 | AF072810.1 | NT | Homo sapiens transcription factor WSTF mRNA, complete cds |
| 8720 | 21800 | 35335 | 0.56 | 5.0E-71 | 5453777 | NT | Homo sapiens nuclear factor related to kappa B binding protein (NFRKB) mRNA |
| 8720 | 21800 | 35336 | 0.56 | 5.0E-71 | 5453777 | NT | Homo sapiens nuclear factor related to kappa B binding protein (NFRKB) mRNA |
| 10116 | 23153 | | 2.06 | 5.0E-71 | X13467.1 | NT | Human PreA4 gene for Alzheimer's disease A4 amyloid protein precursor (exon 2) |
| 10476 | 23511 | 37124 | 0.49 | 5.0E-71 | U70968.1 | NT | Human arrestin (SAG) gene exon 8 |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10870 | 23955 | 37584 | 1.45 | 5.0E-71 | 5729900 | NT | Homo sapiens IGF-II mRNA-binding protein 3 (KOC1), mRNA |
| 10943 | 24025 | 37660 | 1.53 | 5.0E-71 | 11417012 | NT | Homo sapiens similar to transcription factor CA150 (H. sapiens) (LOC63170), mRNA |
| 10943 | 24025 | 37661 | 1.53 | 5.0E-71 | 11417012 | NT | Homo sapiens similar to transcription factor CA150 (H. sapiens) (LOC63170), mRNA |
| 11226 | 24295 | 37936 | 3.85 | 5.0E-71 | 11436514 | NT | Homo sapiens pro-platelet basic protein (includes platelet basic protein, beta-thromboglobulin, connective tissue-activating peptide III, neutrophil-activating peptide-2) (PPBP), mRNA |
| 11467 | 24526 | 38199 | 2.1 | 5.0E-71 | 11438069 | NT | Homo sapiens similar to hypothetical protein FLJ20163 (H. sapiens) (LOC63325), mRNA |
| 12558 | 25380 | | 1.76 | 5.0E-71 | 11418039 | NT | Homo sapiens RNA binding motif protein 9 (RBM9), mRNA |
| 106 | 13342 | 26370 | 1.84 | 4.0E-71 | 4507592 | NT | Homo sapiens tumor necrosis factor (ligand) superfamily, member 10 (TNFSF10) mRNA |
| 360 | 13571 | 26601 | 31.91 | 4.0E-71 | AF157626.1 | NT | Equus caballus glyceraldehyde-3-phosphate dehydrogenase mRNA, partial cds |
| 360 | 13571 | 26602 | 31.91 | 4.0E-71 | AF157626.1 | NT | Equus caballus glyceraldehyde-3-phosphate dehydrogenase mRNA, partial cds |
| 2951 | 16128 | 29141 | 1.67 | 4.0E-71 | 4505880 | NT | Homo sapiens plasminogen (PLG) mRNA |
| 4548 | 17686 | 30667 | 1.97 | 4.0E-71 | AF056322.1 | NT | Homo sapiens SP100-HMG nuclear autoantigen (SP100) mRNA, complete cds |
| 5101 | 18229 | 31200 | 4.56 | 4.0E-71 | 7657602 | NT | Homo sapiens putative heme-binding protein (SOUL), mRNA |
| 8223 | 21305 | | 1.13 | 3.0E-71 | AU135734.1 | EST_HUMAN | AU135734 PLACE1 Homo sapiens cDNA clone PLACE1002775 5' |
| 10931 | 24013 | 37646 | 3.32 | 3.0E-71 | AA557683.1 | EST_HUMAN | nl45h10.s1 NCI_CGAP_Pr4 Homo sapiens cDNA clone IMAGE:1043683 similar to contains PTR5.t3 PTR5 repetitive element ; |
| 1268 | 14416 | 27481 | 4.54 | 2.0E-71 | AL163206.2 | NT | Homo sapiens chromosome 21 segment HS21C006 |
| 5435 | 18635 | 31614 | 7.23 | 2.0E-71 | D87462.1 | NT | Human mRNA for KIAA0272 gene, partial cds |
| 5436 | 18635 | 31615 | 7.23 | 2.0E-71 | D87462.1 | NT | Human mRNA for KIAA0272 gene, partial cds |
| 7107 | 18534 | 31489 | 0.71 | 2.0E-71 | AL042439.1 | EST_HUMAN | DKFZp434D1721_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434D1721 5' |
| 9207 | 22285 | 35826 | 0.5 | 2.0E-71 | BF195585.1 | EST_HUMAN | 7n85c11.x1 NCI_CGAP_Ov18 Homo sapiens cDNA clone IMAGE:3571221 3' similar to TR:Q9Z165 Q9Z165 PUTATIVE FOUR REPEAT ION CHANNEL. ; |
| 10813 | 23846 | 37467 | 2.12 | 2.0E-71 | AF095703.1 | NT | Homo sapiens short chain L-3-hydroxyacyl-CoA dehydrogenase precursor (HADHSC) gene, nuclear gene encoding mitochondrial protein, complete cds |
| 10813 | 23846 | 37468 | 2.12 | 2.0E-71 | AF095703.1 | NT | Homo sapiens short chain L-3-hydroxyacyl-CoA dehydrogenase precursor (HADHSC) gene, nuclear gene encoding mitochondrial protein, complete cds |
| 10933 | 24015 | 37647 | 4.37 | 2.0E-71 | BE018477.1 | EST_HUMAN | bb81a06.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3048754 5' similar to SW:R23B_HUMAN P54727 UV EXCISION REPAIR PROTEIN PROTEIN RAD23 HOMOLOG B ; |
| 11860 | 24848 | 38545 | 1.46 | 2.0E-71 | BF149173.1 | EST_HUMAN | Tmul022 Human Epidermal Keratinocyte Subtraction Library- Upregulated Transcripts Homo sapiens cDNA similar to gi 6596881 |
| 11860 | 24848 | 38546 | 1.46 | 2.0E-71 | BF149173.1 | EST_HUMAN | Tmul022 Human Epidermal Keratinocyte Subtraction Library- Upregulated Transcripts Homo sapiens cDNA similar to gi 6598881 |
| 11882 | 24870 | 38567 | 2.05 | 2.0E-71 | R55626.1 | EST_HUMAN | yj77c11.r1 Soares breast 2NbHBst Homo sapiens cDNA clone IMAGE:154772 5' |
| 12318 | 25231 | | 4.88 | 2.0E-71 | T95489.1 | EST_HUMAN | ye43e09.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:120520 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 655 | 13841 | 26868 | 1.55 | 1.0E-71 | AI077927.1 | EST_HUMAN | oy15e03.s1 Soares_senescent_fibroblasts_NbHSF Homo sapiens cDNA clone IMAGE:1665916 3' similar to contains LOR1.b2 LOR1 repetitive element ; |
| 964 | 14137 | 27198 | 1.38 | 1.0E-71 | 7706281 | NT | Homo sapiens neuronal cell death-related protein (LOC51616), mRNA |
| 1124 | 14289 | 27344 | 13.07 | 1.0E-71 | AF205890.1 | NT | Homo sapiens disabled-2 gene, exons 2 through 15 and complete cds |
| 1371 | 14526 | 27600 | 11.13 | 1.0E-71 | AF012872.1 | NT | Homo sapiens phosphatidylinositol 4-kinase 230 (pI4K230) mRNA, complete cds |
| 2147 | 15283 | 28408 | 1.52 | 1.0E-71 | AB017007.1 | NT | Homo sapiens PMS2L16 mRNA, partial cds |
| 2147 | 15283 | 28409 | 1.52 | 1.0E-71 | AB017007.1 | NT | Homo sapiens PMS2L16 mRNA, partial cds |
| 2757 | 16874 | 28982 | 6.06 | 1.0E-71 | 7657153 | NT | Homo sapiens hairy/enhancer-of-split related with YRPW motif-like (HEYL), mRNA |
| 3590 | 16754 | 29769 | 1.56 | 1.0E-71 | AF119665.1 | NT | Homo sapiens inorganic pyrophosphatase mRNA, complete cds |
| 3685 | 16848 | 29855 | 6.57 | 1.0E-71 | AF246219.1 | NT | Homo sapiens SNARE protein kinase SNAK mRNA, complete cds |
| 3685 | 16848 | 29856 | 6.57 | 1.0E-71 | AF246219.1 | NT | Homo sapiens SNARE protein kinase SNAK mRNA, complete cds |
| 3738 | 16899 | 29902 | 0.9 | 1.0E-71 | BE122850.1 | EST_HUMAN | 02_15 Human Epidermal Keratinocyte Subtraction Library- Upregulated Transcripts Homo sapiens cDNA clone 02_15 5' similar to Homo sapiens chromosome 19 |
| 3738 | 16899 | 29903 | 0.9 | 1.0E-71 | BE122850.1 | EST_HUMAN | 02_15 Human Epidermal Keratinocyte Subtraction Library- Upregulated Transcripts Homo sapiens cDNA clone 02_15 5' similar to Homo sapiens chromosome 19 |
| 3835 | 16995 | 29997 | 2.2 | 1.0E-71 | AF218904.1 | NT | Homo sapiens attractin precursor (ATRN) gene, exon 19 |
| 4593 | 17730 | 30712 | 2.13 | 1.0E-71 | D28476.1 | NT | Human mRNA for KIAA0045 gene, complete cds |
| 6881 | 20033 | 33443 | 1.48 | 1.0E-71 | 11426182 | NT | Homo sapiens GCN5 (general control of amino-acid synthesis, yeast, homolog)-like 2 (GCN5L2), mRNA |
| 7235 | 20319 | 33762 | 1.49 | 1.0E-71 | AB011131.1 | NT | Homo sapiens mRNA for KIAA0559 protein, partial cds |
| 7464 | 20539 | 34013 | 12.52 | 1.0E-71 | U80753.1 | NT | Homo sapiens CAGL79 mRNA, partial cds |
| 8340 | 21421 | 34946 | 0.82 | 1.0E-71 | AF105267.1 | NT | Homo sapiens glypican-6 (GPC6) mRNA, complete cds |
| 8362 | 21443 | 34965 | 2.21 | 1.0E-71 | 11425430 | NT | Homo sapiens myomesin (M-protein) 2 (165kD) (MYOM2), mRNA |
| 8641 | 21721 | 35257 | 4.23 | 1.0E-71 | 8922811 | NT | Homo sapiens hypothetical protein FLJ10998 (FLJ10998), mRNA |
| 8641 | 21721 | 35258 | 4.23 | 1.0E-71 | 8922811 | NT | Homo sapiens hypothetical protein FLJ10998 (FLJ10998), mRNA |
| 9429 | 22503 | 36069 | 0.68 | 1.0E-71 | S72393.1 | NT | CSNK2A1=casein kinase II (CKII) subunit alpha [human, Genomic, 18862 nt] |
| 10211 | 23247 | 36837 | 6.22 | 1.0E-71 | AY007643.1 | NT | Homo sapiens cytochrome c oxidase subunit VIIa-related protein gene, complete cds |
| 10273 | 23308 |  | 2.74 | 1.0E-71 | AV761217.1 | EST_HUMAN | AV761217 MDS Homo sapiens cDNA clone MDSEIA03 5' |
| 10759 | 23792 | 37411 | 0.97 | 1.0E-71 | 11433142 | NT | Homo sapiens activated leucocyte cell adhesion molecule (ALCAM), mRNA |
| 11024 | 24103 |  | 2.49 | 1.0E-71 | AV761217.1 | EST_HUMAN | AV761217 MDS Homo sapiens cDNA clone MDSEIA03 5' |
| 11121 | 24193 | 37824 | 3.31 | 1.0E-71 | 11418903 | NT | Homo sapiens coagulation factor XIII, A1 polypeptide (F13A1), mRNA |
| 11413 | 24474 | 38138 | 3.2 | 1.0E-71 | 11417191 | NT | Homo sapiens leucyl/cystinyl aminopeptidase (LNPEP), mRNA |
| 11413 | 24474 | 38139 | 3.2 | 1.0E-71 | 11417191 | NT | Homo sapiens leucyl/cystinyl aminopeptidase (LNPEP), mRNA |
| 12709 | 25471 |  | 10.17 | 1.0E-71 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |

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Table 4
Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 420 | 13615 | 26654 | 0.77 | 9.0E-72 | AI857635.1 | EST_HUMAN | wk95g03.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2423188 3' similar to TR:O86705 O86705 HYPOTHETICAL 38.6 KD PROTEIN. ;contains Alu repetitive element; |
| 420 | 13615 | 26655 | 0.77 | 9.0E-72 | AI857635.1 | EST_HUMAN | wk95g03.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2423188 3' similar to TR:O86705 O86705 HYPOTHETICAL 38.6 KD PROTEIN. ;contains Alu repetitive element; |
| 6237 | 19412 | 32760 | 0.86 | 8.0E-72 | BF035752.1 | EST_HUMAN | 601468747F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862451 5' |
| 4228 | 17375 | 30361 | 1.75 | 7.0E-72 | 4501866 | NT | Homo sapiens aconitase 2, mitochondrial (ACO2), nuclear gene encoding mitocondrial protein, mRNA |
| 4228 | 17375 | 30362 | 1.75 | 7.0E-72 | 4501866 | NT | Homo sapiens aconitase 2, mitochondrial (ACO2), nuclear gene encoding mitocondrial protein, mRNA |
| 4228 | 17375 | 30363 | 1.75 | 7.0E-72 | 4501866 | NT | Homo sapiens aconitase 2, mitochondrial (ACO2), nuclear gene encoding mitocondrial protein, mRNA |
| 7274 | 20357 | 33811 | 3 | 7.0E-72 | S41694.1 | NT | {pseudogene} PTMAP2=prothymosin alpha [human, Genomic, 1192 nt, segment 2 of 3] |
| 12857 | 25569 | | 1.53 | 7.0E-72 | F26259.1 | EST_HUMAN | HSPD13670 HM3 Homo sapiens cDNA clone s4000051G02 |
| 8578 | 21659 | | 6.7 | 6.0E-72 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 64 | 13302 | 26324 | 1.19 | 5.0E-72 | BF333707.1 | EST_HUMAN | QV0-CS0010-150900-398-e11 CS0010 Homo sapiens cDNA |
| 64 | 13302 | 26325 | 1.19 | 5.0E-72 | BF333707.1 | EST_HUMAN | QV0-CS0010-150900-398-e11 CS0010 Homo sapiens cDNA |
| 65 | 13302 | 26324 | 3.1 | 5.0E-72 | BF333707.1 | EST_HUMAN | QV0-CS0010-150900-398-e11 CS0010 Homo sapiens cDNA |
| 65 | 13302 | 26325 | 3.1 | 5.0E-72 | BF333707.1 | EST_HUMAN | QV0-CS0010-150900-398-e11 CS0010 Homo sapiens cDNA |
| 1162 | 14326 | | 2.31 | 5.0E-72 | L11645.1 | NT | Homo sapiens alpha-tubulin mRNA, complete cds |
| 7089 | 20183 | 33607 | 1.62 | 5.0E-72 | AU128584.1 | EST_HUMAN | AU128584 NT2RP2 Homo sapiens cDNA clone NT2RP2003751 5' |
| 8976 | 22055 | 35598 | 4.16 | 6.0E-72 | AW161274.1 | EST_HUMAN | au80c03.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2782564 5' similar to TR:Q99785 Q99785 HYPOTHETICAL 32.4 KD PROTEIN ;contains element MSR1 repetitive element ; |
| 10166 | 23203 | 36797 | 0.71 | 5.0E-72 | AV724632.1 | EST_HUMAN | AV724632 HTB Homo sapiens cDNA clone HTBAKB01 5' |
| 11519 | 24575 | 38252 | 2.95 | 5.0E-72 | BF331571.1 | EST_HUMAN | MR4-BT0598-010600-005-d05 BT0598 Homo sapiens cDNA |
| 11519 | 24576 | 38253 | 2.95 | 5.0E-72 | BF331571.1 | EST_HUMAN | MR4-BT0598-010600-005-d05 BT0598 Homo sapiens cDNA |
| 11945 | 24931 | 38633 | 1.55 | 5.0E-72 | BE208545.1 | EST_HUMAN | ba08g08.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823806 5' |
| 11945 | 24931 | 38634 | 1.55 | 5.0E-72 | BE208545.1 | EST_HUMAN | ba08g08.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823806 5' |
| 12390 | 26136 | | 2.46 | 5.0E-72 | BE926645.1 | EST_HUMAN | QV1-BT0632-280800-342-a10 BT0632 Homo sapiens cDNA |
| 4943 | 18073 | | 0.91 | 4.0E-72 | 11034844 | NT | Homo sapiens hypothetical protein dJ1057B20.2 (DJ1057B20.2), mRNA |
| 5581 | 18776 | 31821 | 0.68 | 4.0E-72 | AF170025.1 | NT | Homo sapiens zinc finger protein ZFP-95 (ZFP95) mRNA, alternatively spliced, complete cds |
| 6687 | 19845 | 33236 | 0.85 | 4.0E-72 | T87947.1 | EST_HUMAN | yd93a01.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:115752 5' similar to SP:A44282 A44282 RETROVIRUS-RELATED POL POLYPROTEIN - HUMAN ; |
| 7567 | 20639 | 34115 | 3.26 | 4.0E-72 | 5729867 | NT | Homo sapiens hect domain and RLD 2 (HERC2), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9987 | 23026 | 36618 | 0.87 | 4.0E-72 | 8923669 | NT | Homo sapiens hypothetical protein FLJ20758 (FLJ20758), mRNA |
| 10312 | 23347 | 36953 | 0.57 | 4.0E-72 | 11434344 | NT | Homo sapiens SEC10 (S. cerevisiae)-like 1 (SEC10L1), mRNA |
| 10604 | 23638 | 37245 | 0.54 | 4.0E-72 | AW836230.1 | EST_HUMAN | RC3-LT0023-200100-012-d11 LT0023 Homo sapiens cDNA |
| 10604 | 23638 | 37246 | 0.54 | 4.0E-72 | AW836230.1 | EST_HUMAN | RC3-LT0023-200100-012-d11 LT0023 Homo sapiens cDNA |
| 10634 | 23668 | 37278 | 1.04 | 4.0E-72 | AI248796.1 | EST_HUMAN | qh67c02.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1849730 3' similar to TR:Q14498 Q14498 SPLICING FACTOR. [1] ;contains Alu repetitive element;contains element L1 repetitive element ; |
| 11563 | 24618 | 38298 | 1.57 | 4.0E-72 | AA465388.1 | EST_HUMAN | aa23f09.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:814121 3' similar to SW:CPTR_FLAPR P49131 CHLOROPLAST TRIOSE PHOSPHATE TRANSLOCATOR PRECURSOR. ; |
| 11563 | 24618 | 38299 | 1.57 | 4.0E-72 | AA465388.1 | EST_HUMAN | aa23f09.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:814121 3' similar to SW:CPTR_FLAPR P49131 CHLOROPLAST TRIOSE PHOSPHATE TRANSLOCATOR PRECURSOR. ; |
| 11818 | 24807 | 38503 | 6.28 | 4.0E-72 | H79421.1 | EST_HUMAN | yu28a03.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:235084 5' |
| 11938 | 24924 | 38624 | 2.19 | 4.0E-72 | 7657057 | NT | Homo sapiens eukaryotic translation initiation factor 2B, subunit 2 (beta, 39kD) (EIF2B2), mRNA |
| 11938 | 24924 | 38625 | 2.19 | 4.0E-72 | 7657057 | NT | Homo sapiens eukaryotic translation initiation factor 2B, subunit 2 (beta, 39kD) (EIF2B2), mRNA |
| 11976 | 24961 | 38663 | 1.67 | 4.0E-72 | T81910.1 | EST_HUMAN | yd29d09.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:109649 3' |
| 12779 | 25521 | 32003 | 11.86 | 4.0E-72 | AJ277546.2 | NT | Homo sapiens WEE1 gene for protein kinase and partial ZNF143 gene for zinc finger transcription factor |
| 21 | 13259 | 26259 | 0.7 | 3.0E-72 | 6031976 | NT | Homo sapiens pre-B-cell colony-enhancing factor (PBEF) mRNA |
| 926 | 14101 |  | 1.48 | 3.0E-72 | AA723823.1 | EST_HUMAN | eh63a06.s1 Soares_testis_NHT Homo sapiens cDNA clone 1310290 3' |
| 1180 | 14343 | 27398 | 6.32 | 3.0E-72 | U16306.1 | NT | Human chondroitin sulfate proteoglycan versican V0 splice-variant precursor peptide mRNA, complete cds |
| 1180 | 14343 | 27399 | 6.32 | 3.0E-72 | U16306.1 | NT | Human chondroitin sulfate proteoglycan versican V0 splice-variant precursor peptide mRNA, complete cds |
| 1220 | 14381 | 27440 | 3.98 | 3.0E-72 | U80226.1 | NT | Human gamma-aminobutyric acid transaminase mRNA, partial cds |
| 1220 | 14381 | 27441 | 3.98 | 3.0E-72 | U80226.1 | NT | Human gamma-aminobutyric acid transaminase mRNA, partial cds |
| 1548 | 14700 | 27779 | 1.16 | 3.0E-72 | BE242161.1 | EST_HUMAN | TCAAP1E1252 Pediatric acute myelogenous leukemia cell (FAB M1) Baylor-HGSC project=TCAA Homo sapiens cDNA clone TCAAP1252 |
| 3143 | 16319 | 29331 | 12.72 | 3.0E-72 | AJ229043.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22, segment 3/3 |
| 3352 | 16524 | 29539 | 2.7 | 3.0E-72 | 8923548 | NT | Homo sapiens hypothetical protein FLJ20585 (FLJ20585), mRNA |
| 3927 | 17086 | 30082 | 2.51 | 3.0E-72 | S77589.1 | NT | TCR V delta 2-C alpha =T-cell receptor delta and C alpha fusion gene {alternatively spliced, splice junction} [human, precursor B-cell line REH, mRNA Partial, 211 nt] |
| 4667 | 17802 | 30789 | 3.17 | 3.0E-72 | 11416196 | NT | Homo sapiens hypothetical protein (FLJ11127), mRNA |
| 4889 | 18019 | 31003 | 1.25 | 3.0E-72 | AF167572.1 | NT | Homo sapiens protein methyltransferase (JBP1) mRNA, complete cds |
| 4889 | 18019 | 31004 | 1.25 | 3.0E-72 | AF167572.1 | NT | Homo sapiens protein methyltransferase (JBP1) mRNA, complete cds |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5637 | 18831 | | 1.12 | 3.0E-72 | 4759093 | NT | Homo sapiens semaphorin W (SEMAW) mRNA |
| 6101 | 19281 | 32613 | 1.94 | 3.0E-72 | AF073367.1 | NT | Homo sapiens growth factor receptor-bound protein 10 (GRB10) gene, exon 5 |
| 6101 | 19281 | 32614 | 1.94 | 3.0E-72 | AF073367.1 | NT | Homo sapiens growth factor receptor-bound protein 10 (GRB10) gene, exon 5 |
| 6295 | 19468 | 32822 | 4.53 | 3.0E-72 | AB029004.1 | NT | Homo sapiens mRNA for KIAA1081 protein, partial cds |
| 6295 | 19468 | 32823 | 4.53 | 3.0E-72 | AB029004.1 | NT | Homo sapiens mRNA for KIAA1081 protein, partial cds |
| 6747 | 19903 | 33296 | 4.1 | 3.0E-72 | 4826987 | NT | Homo sapiens ribosomal protein L3-like (RPL3L) mRNA |
| 7758 | 20817 | 34307 | 2.01 | 3.0E-72 | U80017.1 | NT | Homo sapiens basic transcription factor 2 p44 (btf2p44) gene, partial cds, neuronal apoptosis inhibitory protein (naip) and survival motor neuron protein (smn) genes, complete cds |
| 8369 | 21450 | 34973 | 5.42 | 3.0E-72 | 5031892 | NT | Homo sapiens nuclear receptor subfamily 1, group H, member 3 (NR1H3), mRNA |
| 10646 | 23680 | 37290 | 1.09 | 3.0E-72 | X98289.1 | NT | Homo sapiens S100A12 gene for Calgranulin C, exon 2 and joined cds |
| 12678 | 25463 | 32018 | 2.18 | 3.0E-72 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 6079 | 19261 | 32590 | 1.38 | 2.0E-72 | 11426671 | NT | Homo sapiens solute carrier family 13 (sodium-dependent dicarboxylate transporter), member 2 (SLC13A2), mRNA |
| 9297 | 22373 | 35923 | 0.64 | 2.0E-72 | BF308560.1 | EST_HUMAN | 601890419F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4131461 5' |
| 9297 | 22373 | 35924 | 0.64 | 2.0E-72 | BF308560.1 | EST_HUMAN | 601890419F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4131461 5' |
| 10978 | 24057 | 37691 | 5.46 | 2.0E-72 | AA789277.1 | EST_HUMAN | aj28b09.s1 Soares_testis_NHT Homo sapiens cDNA clone 1391609 3' similar to gb:X02067 H.sapiens mRNA for 7SL RNA pseudogene (HUMAN); |
| 12772 | 25515 | 31999 | 3.39 | 2.0E-72 | AF182714.1 | NT | Rattus norvegicus putative phosphate/phosphoenolpyruvate translocator mRNA, complete cds |
| 2137 | 15273 | 28394 | 8.14 | 1.0E-72 | AA846225.1 | EST_HUMAN | ai83d02.s1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1387395 3' |
| 5887 | 19075 | 32384 | 3.54 | 1.0E-72 | 7657676 | NT | Homo sapiens vacuolar protein sorting 41 (yeast homolog) (VPS41), mRNA |
| 6689 | 19847 | 33237 | 1.22 | 1.0E-72 | 11321578 | NT | Homo sapiens myosin, heavy polypeptide 13, skeletal muccle (MYH13), mRNA |
| 6689 | 19847 | 33238 | 1.22 | 1.0E-72 | 11321578 | NT | Homo sapiens myosin, heavy polypeptide 13, skeletal muscle (MYH13), mRNA |
| 6769 | 25832 | 33319 | 1.29 | 1.0E-72 | AV751818.1 | EST_HUMAN | AV751818 NPD Homo sapiens cDNA clone NPDAIE11 5' |
| 7815 | 20870 | 34366 | 3.5 | 1.0E-72 | BE175434.1 | EST_HUMAN | RC4-HT0578-170300-012-g02 HT0578 Homo sapiens cDNA |
| 7815 | 20870 | 34367 | 3.5 | 1.0E-72 | BE175434.1 | EST_HUMAN | RC4-HT0578-170300-012-g02 HT0578 Homo sapiens cDNA |
| 9790 | 22830 | 36408 | 7.37 | 1.0E-72 | AF222742.1 | NT | Homo sapiens synaptic glycoprotein SC2 (SC2) mRNA, complete cds |
| 9790 | 22830 | 36409 | 7.37 | 1.0E-72 | AF222742.1 | NT | Homo sapiens synaptic glycoprotein SC2 (SC2) mRNA, complete cds |
| 1488 | 14641 | 27723 | 1.17 | 9.0E-73 | AW374968.1 | EST_HUMAN | MR0-CT0063-071099-002-h11 CT0063 Homo sapiens cDNA |
| 6164 | 19340 | 32687 | 0.92 | 9.0E-73 | 11525883 | NT | Homo sapiens membrane protein, palmitoylated 3 (MAGUK p55 subfamily member 3) (MPP3), mRNA |
| 11193 | 24262 | | 24.49 | 9.0E-73 | 11424099 | NT | Homo sapiens ribosomal protein L13a (RPL13A), mRNA |
| 1063 | 14228 | 27285 | 0.73 | 8.0E-73 | AW071755.1 | EST_HUMAN | ws55c06.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2501098 3' similar to TR:Q59050 Q59050 HYPOTHETICAL PROTEIN MJ1656. ; |
| 5698 | 18892 | 32184 | 0.98 | 8.0E-73 | 4505798 | NT | Homo sapiens phosphatidylinositol 3-kinase, class 2, alpha polypeptide (PIK3C2A) mRNA |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6702 | 19860 | 33250 | 6.29 | 8.0E-73 | 11426469 | NT | Homo sapiens lysozyme homolog (LOC57151), mRNA |
| 8287 | 21369 | 34890 | 2.1 | 8.0E-73 | AF113129.1 | NT | Homo sapiens vacuolar ATPase isoform VA68 mRNA, complete cds |
| 9553 | 22618 | 36188 | 4.35 | 8.0E-73 | BE019900.1 | EST_HUMAN | bb62a06.y1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3030034 5' similar to gb:X04098_cds1 ACTIN, CYTOPLASMIC 2 (HUMAN); gb:M21495 Mouse cytoskeletal gamma-actin mRNA, complete cds (MOUSE); |
| 9941 | 22980 | 36570 | 1.76 | 8.0E-73 | 11526037 | NT | Homo sapiens interleukin 12 receptor, beta 1 (IL12RB1), mRNA |
| 9941 | 22980 | 36571 | 1.76 | 8.0E-73 | 11526037 | NT | Homo sapiens interleukin 12 receptor, beta 1 (IL12RB1), mRNA |
| 10134 | 23172 | 36770 | 0.51 | 8.0E-73 | X91940.1 | NT | H.sapiens mRNA for WNT-8B protein |
| 10834 | 23867 | 37490 | 0.47 | 8.0E-73 | 4507628 | NT | Homo sapiens transition protein 1 (during histone to protamine replacement) (TNP1) mRNA |
| 12001 | 24986 | 38690 | 1.49 | 8.0E-73 | AF084520.1 | NT | Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 1 mRNA, complete cds |
| 12598 | 25403 | 32044 | 1.2 | 8.0E-73 | AB002059.1 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 12842 | 25560 | 31986 | 4.55 | 8.0E-73 | 11418189 | NT | Homo sapiens thyroid autoantigen 70kD (Ku antigen) (G22P1), mRNA |
| 1157 | 14321 | 27376 | 1.61 | 7.0E-73 | 8923290 | NT | Homo sapiens hypothetical protein FLJ20309 (FLJ20309), mRNA |
| 3373 | 16545 | 29559 | 0.7 | 7.0E-73 | AL163206.2 | NT | Homo sapiens chromosome 21 segment HS21C006 |
| 5059 | 18187 | | 1.29 | 7.0E-73 | AL163282.2 | NT | Homo sapiens chromosome 21 segment HS21C082 |
| 162 | 13387 | | 3.04 | 6.0E-73 | AL163218.2 | NT | Homo sapiens chromosome 21 segment HS21C018 |
| 7323 | 20405 | 33867 | 3.42 | 6.0E-73 | BE166574.1 | EST_HUMAN | QV0-HT0494-020300-137-d03 HT0494 Homo sapiens cDNA |
| 5368 | 18571 | 31439 | 2.05 | 4.0E-73 | 11422159 | NT | Homo sapiens HELG protein (FAM4A1), mRNA |
| 1911 | 15054 | 28165 | 1.34 | 3.0E-73 | 11435913 | NT | Homo sapiens heme-binding protein (HEBP), mRNA |
| 1911 | 15054 | 28166 | 1.34 | 3.0E-73 | 11435913 | NT | Homo sapiens heme-binding protein (HEBP), mRNA |
| 6837 | 19990 | 33398 | 0.73 | 3.0E-73 | AA136403.1 | EST_HUMAN | zn95e04.s1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:565950 3' similar to gb:Z23064_cds1 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEIN G (HUMAN); |
| 8958 | 22037 | 35578 | 0.73 | 3.0E-73 | AV729428.1 | EST_HUMAN | AV729428 HTC Homo sapiens cDNA clone HTCAAF071 5' |
| 8958 | 22037 | 35579 | 0.73 | 3.0E-73 | AV729428.1 | EST_HUMAN | AV729428 HTC Homo sapiens cDNA clone HTCAAF071 5' |
| 10927 | 24010 | | 1.45 | 3.0E-73 | X99660.1 | NT | H.sapiens SH3GLP2 pseudogene, 5' end |
| 11261 | 24330 | 37970 | 1.41 | 3.0E-73 | BE711238.1 | EST_HUMAN | RC6-HT0678-290600-013-H10 HT0678 Homo sapiens cDNA |
| 11261 | 24330 | 37971 | 1.41 | 3.0E-73 | BE711238.1 | EST_HUMAN | RC6-HT0678-290600-013-H10 HT0678 Homo sapiens cDNA |
| 11910 | 24897 | | 1.82 | 3.0E-73 | AI004040.1 | EST_HUMAN | ou11d02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1625955 3' |
| 13118 | 25730 | | 3.04 | 3.0E-73 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 13122 | 25732 | | 2.05 | 3.0E-73 | AW898081.1 | EST_HUMAN | RC3-NN0066-270400-011-c04 NN0066 Homo sapiens cDNA |
| 874 | 14050 | 27115 | 1.57 | 2.0E-73 | AF139897.1 | NT | Homo sapiens BASS1 (BASS1) mRNA, partial cds |
| 2000 | 15141 | | 9.67 | 2.0E-73 | AW898081.1 | EST_HUMAN | RC3-NN0066-270400-011-c04 NN0066 Homo sapiens cDNA |
| 2371 | 15502 | | 1.49 | 2.0E-73 | U01317.1 | NT | Human beta globin region on chromosome 11 |
| 3249 | 16423 | 29440 | 2.03 | 2.0E-73 | 4502582 | NT | Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3640 | 16804 | 29816 | 0.68 | 2.0E-73 | 7669539 | NT | Homo sapiens Parkinson disease (autosomal recessive, juvenile) 2, parkin (PARK2), transcript variant 3, mRNA |
| 3640 | 16804 | 29817 | 0.68 | 2.0E-73 | 7669539 | NT | Homo sapiens Parkinson disease (autosomal recessive, juvenile) 2, parkin (PARK2), transcript variant 3, mRNA |
| 4555 | 17693 | | 1.31 | 2.0E-73 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 6567 | 19729 | 33106 | 0.59 | 2.0E-73 | AF086824.1 | NT | Mus musculus rho/rac-interacting citron kinase (Crik) mRNA, complete cds |
| 6567 | 19729 | 33107 | 0.59 | 2.0E-73 | AF086824.1 | NT | Mus musculus rho/rac-interacting citron kinase (Crik) mRNA, complete cds |
| 6610 | 19770 | 33160 | 5.46 | 2.0E-73 | AB046811.1 | NT | Homo sapiens mRNA for KIAA1591 protein, partial cds |
| 6839 | 19992 | 33400 | 1.87 | 2.0E-73 | 11431471 | NT | Homo sapiens interleukin 4 receptor (IL4R), mRNA |
| 6839 | 19992 | 33401 | 1.87 | 2.0E-73 | 11431471 | NT | Homo sapiens interleukin 4 receptor (IL4R), mRNA |
| 7984 | 21033 | 34546 | 1.01 | 2.0E-73 | M94048.1 | NT | Human peripheral myelin protein 22 mRNA, complete cds |
| 9732 | 22797 | 36370 | 0.54 | 2.0E-73 | AF198349.1 | NT | Gallus gallus Dach2 protein (Dach2) mRNA, complete cds |
| 9732 | 22797 | 36371 | 0.54 | 2.0E-73 | AF198349.1 | NT | Gallus gallus Dach2 protein (Dach2) mRNA, complete cds |
| 10637 | 23671 | 37281 | 1.31 | 2.0E-73 | 4504168 | NT | Homo sapiens glutathione synthetase (GSS) mRNA |
| 10715 | 23748 | 37355 | 1.38 | 2.0E-73 | 11496980 | NT | Homo sapiens supervillin (SVIL), transcript variant 1, mRNA |
| 10716 | 23748 | 37356 | 1.38 | 2.0E-73 | 11496980 | NT | Homo sapiens supervillin (SVIL), transcript variant 1, mRNA |
| 11309 | 24374 | 38017 | 2.91 | 2.0E-73 | 4557612 | NT | Homo sapiens galactosylceramidase (Krabbe disease) (GALC), mRNA |
| 11309 | 24374 | 38018 | 2.91 | 2.0E-73 | 4557612 | NT | Homo sapiens galactosylceramidase (Krabbe disease) (GALC), mRNA |
| 11339 | 24402 | 38051 | 1.44 | 2.0E-73 | AB028982.1 | NT | Homo sapiens mRNA for KIAA1059 protein, partial cds |
| 12599 | 15141 | | 4.32 | 2.0E-73 | AW898081.1 | EST_HUMAN | RC3-NN0066-270400-011-c04 NN0066 Homo sapiens cDNA |
| 1824 | 14973 | 28068 | 3.52 | 1.0E-73 | AU121585.1 | EST_HUMAN | AU121585 MAMMA1 Homo sapiens cDNA clone MAMMA1000490 5' |
| 6490 | 19656 | 33019 | 1.19 | 1.0E-73 | BE151283.1 | EST_HUMAN | CM1-HT0282-111199-042-h10 HT0282 Homo sapiens cDNA |
| 9699 | 22748 | 36316 | 1.22 | 1.0E-73 | AI147427.1 | EST_HUMAN | qg61b07.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1839637 5' similar to contains element MER22 repetitive element ; |
| 11736 | 23922 | 37547 | 3.74 | 1.0E-73 | BE385477.1 | EST_HUMAN | 601276071F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3617105 5' |
| 12046 | 25026 | 38731 | 1.34 | 9.0E-74 | X77225.1 | NT | H.sapiens mRNA for TFIIA |
| 12045 | 25026 | 38732 | 1.34 | 9.0E-74 | X77225.1 | NT | H.sapiens mRNA for TFIIA |
| 769 | 13940 | 26985 | 4.83 | 8.0E-74 | 4557426 | NT | Homo sapiens CD39-like 4 (CD39L4) mRNA |
| 6036 | 19219 | 32541 | 1.73 | 8.0E-74 | S83194.1 | NT | Ca2+/calmodulin-dependent protein kinase IV kinase isoform [rats, brain, mRNA, 3429 nt] |
| 6036 | 19219 | 32542 | 1.73 | 8.0E-74 | S83194.1 | NT | Ca2+/calmodulin-dependent protein kinase IV kinase isoform [rats, brain, mRNA, 3429 nt] |
| 2004 | 15144 | 28249 | 4.96 | 7.0E-74 | AJ001689.1 | NT | Homo sapiens NKG2D gene, exon 10 |
| 3407 | 16577 | 29592 | 1.83 | 7.0E-74 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 9444 | 22560 | 36123 | 1.48 | 7.0E-74 | BE967432.1 | EST_HUMAN | 601649284F1 NIH_MGC_73 Homo sapiens cDNA clone IMAGE:3932997 5' |
| 12841 | 25559 | 31985 | 4.73 | 7.0E-74 | BE266305.1 | EST_HUMAN | 601191927F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3535855 5' |

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## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1146 | 14311 | 27368 | 3.65 | 6.0E-74 | AF109907.1 | NT | Homo sapiens S164 gene, partial cds; PS1 and hypothetical protein genes, complete cds; and S171 gene, partial cds |
| 1656 | 14809 | 27893 | 1.03 | 6.0E-74 | AW263177.1 | EST_HUMAN | xn78g07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2700636 3' |
| 2390 | 15521 | 28649 | 15.52 | 6.0E-74 | BE388260.1 | EST_HUMAN | 601283521F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3605453 5' |
| 2390 | 15521 | 28650 | 15.52 | 6.0E-74 | BE388260.1 | EST_HUMAN | 601283521F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3605453 5' |
| 2927 | 16104 | 29119 | 0.97 | 6.0E-74 | AW014039.1 | EST_HUMAN | UI-H-BI0-aah-h-03-0-UI.s1 NCI_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2709365 3' |
| 2927 | 16104 | 29120 | 0.97 | 6.0E-74 | AW014039.1 | EST_HUMAN | UI-H-BI0-aah-h-03-0-UI.s1 NCI_CGAP_Sub1 Homo sapiens cDNA clone IMAGE:2709365 3' |
| 3805 | 16965 | 29968 | 1.22 | 6.0E-74 | BE048846.1 | EST_HUMAN | hr54e11.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3132332 3' |
| 3805 | 16965 | 29969 | 1.22 | 6.0E-74 | BE048846.1 | EST_HUMAN | hr54e11.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3132332 3' |
| 5481 | 18680 | 31695 | 3.49 | 6.0E-74 | 11056013 | NT | Homo sapiens actin filament associated protein (AFAP), mRNA |
| 928 | 14103 | 27166 | 1.93 | 5.0E-74 | AW020986.1 | EST_HUMAN | df17c09.y1 Morton Fetal Cochlea Homo sapiens cDNA clone IMAGE:2483704 5' |
| 2767 | 15882 |  | 4.96 | 5.0E-74 | AW362756.1 | EST_HUMAN | PM0-CT0289-271099-001-h07 CT0289 Homo sapiens cDNA |
| 5523 | 18720 | 31736 | 1.92 | 5.0E-74 | 11425417 | NT | Homo sapiens phosphatidylinositol glycan, class L (PIGL), mRNA |
| 5910 | 19099 | 32413 | 12.5 | 5.0E-74 | X89670.1 | NT | H.sapiens mRNA for TPCR16 protein |
| 5961 | 19147 | 32462 | 8.1 | 5.0E-74 | 4507866 | NT | Homo sapiens VAMP (vesicle-associated membrane protein)-associated protein A (33kD) (VAPA) mRNA, and translated products |
| 6030 | 19213 | 32533 | 2.94 | 5.0E-74 | 11431471 | NT | Homo sapiens interleukin 4 receptor (IL4R), mRNA |
| 6030 | 19213 | 32534 | 2.94 | 5.0E-74 | 11431471 | NT | Homo sapiens interleukin 4 receptor (IL4R), mRNA |
| 7035 | 20171 | 33593 | 3.59 | 5.0E-74 | 7662263 | NT | Homo sapiens KIAA0716 gene product (KIAA0716), mRNA |
| 8226 | 21308 | 34828 | 2.33 | 5.0E-74 | 11345483 | NT | Homo sapiens hypothetical protein FLJ13222 (FLJ13222), mRNA |
| 10973 | 24053 | 37686 | 1.67 | 5.0E-74 | Y09420.1 | NT | H.sapiens mRNA for HIP-I |
| 10973 | 24053 | 37687 | 1.67 | 5.0E-74 | Y09420.1 | NT | H.sapiens mRNA for HIP-I |
| 11090 | 24164 | 37801 | 1.36 | 5.0E-74 | 5729766 | NT | Homo sapiens cell adhesion molecule with homology to L1CAM (close homologue of L1) (CHL1), mRNA |
| 290 | 13507 | 26542 | 3.31 | 4.0E-74 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 876 | 14051 | 27116 | 10.3 | 4.0E-74 | AB028942.1 | NT | Homo sapiens mRNA for KIAA1019 protein, partial cds |
| 2018 | 15158 | 28262 | 3.07 | 4.0E-74 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 2018 | 15158 | 28263 | 3.07 | 4.0E-74 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 2134 | 15270 | 28390 | 9.96 | 4.0E-74 | 4506192 | NT | Homo sapiens proteasome (prosome, macropain) subunit, beta type, 1 (PSMB1) mRNA |
| 2134 | 15270 | 28391 | 9.96 | 4.0E-74 | 4506192 | NT | Homo sapiens proteasome (prosome, macropain) subunit, beta type, 1 (PSMB1) mRNA |
| 2201 | 15336 | 28463 | 1.32 | 4.0E-74 | AB032994.1 | NT | Homo sapiens mRNA for KIAA1168 protein, partial cds |
| 2498 | 15625 | 28745 | 1.16 | 4.0E-74 | AJ006976.1 | NT | Homo sapiens PLP gene |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3160 | 16335 | 29345 | 6.22 | 4.0E-74 | AJ006976.1 | NT | Homo sapiens PLP gene |
| 3616 | 16780 | 29795 | 1.1 | 4.0E-74 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 4174 | 17324 | 30315 | 1.29 | 4.0E-74 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 4679 | 17814 | 30802 | 1.86 | 4.0E-74 | 7662183 | NT | Homo sapiens KIAA0569 gene product (KIAA0569), mRNA |
| 4735 | 17870 | 30854 | 1.07 | 4.0E-74 | Z17227.1 | NT | Homo sapiens mRNA for transmebrane receptor protein |
| 5133 | 18258 | 31224 | 1.03 | 4.0E-74 | AB040909.1 | NT | Homo sapiens mRNA for KIAA1476 protein, partial cds |
| 5185 | 18307 | 31271 | 1.12 | 4.0E-74 | 4504326 | NT | Homo sapiens hydroxyacyl-Coenzyme A dehydrogenase/3-ketoacyl-Coenzyme A thiolase/enoyl-Coenzyme A hydratase (trifunctional protein), beta subunit (HADHB) mRNA |
| 5185 | 18307 | 31272 | 1.12 | 4.0E-74 | 4504326 | NT | Homo sapiens hydroxyacyl-Coenzyme A dehydrogenase/3-ketoacyl-Coenzyme A thiolase/enoyl-Coenzyme A hydratase (trifunctional protein), beta subunit (HADHB) mRNA |
| 8747 | 21826 |  | 3.53 | 3.0E-74 | AA300378.1 | EST_HUMAN | EST13131 Thymus tumor III Homo sapiens cDNA 5' end similar to similar to ribosomal protein L37 |
| 8773 | 21852 | 36394 | 0.62 | 3.0E-74 | 9966912 | NT | Homo sapiens actin-related protein 3-beta (ARP3BETA), mRNA |
| 9572 | 22714 | 36282 | 2.32 | 3.0E-74 | M78984.1 | EST_HUMAN | EST01132 Subtracted Hippocampus, Stratagene (cat. #936205) Homo sapiens cDNA clone HHCPF91 |
| 10546 | 23581 | 37191 | 2.16 | 3.0E-74 | AA601493.1 | EST_HUMAN | no17g05.s1 NCI_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1100984 3' |
| 980 | 14153 | 27213 | 28.83 | 2.0E-74 | 7669491 | NT | Homo sapiens glyceraldehyde-3-phosphate dehydrogenase (GAPD), mRNA |
| 980 | 14153 | 27214 | 28.83 | 2.0E-74 | 7669491 | NT | Homo sapiens glyceraldehyde-3-phosphate dehydrogenase (GAPD), mRNA |
| 1202 | 14364 | 27424 | 1.63 | 2.0E-74 | AF020092.1 | NT | Human endogenous retrovirus HERV-K-T47D |
| 1273 | 14430 | 27501 | 1.44 | 2.0E-74 | AI950528.1 | EST_HUMAN | wx51e07.x1 NCI_CGAP_Lu28 Homo sapiens cDNA clone IMAGE:2547204 3' similar to SW:GG95_HUMAN Q08379 GOLGIN-95. ;contains element MER22 repetitive element ; |
| 1625 | 14777 | 27861 | 10.45 | 2.0E-74 | 4885198 | NT | Homo sapiens epidermal growth factor receptor (avian erythroblastic leukemia viral (v-erb-b) oncogene homolog) (EGFR) mRNA |
| 1625 | 14777 | 27862 | 10.45 | 2.0E-74 | 4885198 | NT | Homo sapiens epidermal growth factor receptor (avian erythroblastic leukemia viral (v-erb-b) oncogene homolog) (EGFR) mRNA |
| 2668 | 15789 | 28905 | 2.18 | 2.0E-74 | AI557280.1 | EST_HUMAN | PT2.1_15_G11.r tumor2 Homo sapiens cDNA 3' |
| 5119 | 18245 | 31210 | 2.52 | 2.0E-74 | AL355092.1 | NT | Novel human gene mapping to chomosome 22 |
| 5119 | 18245 | 31211 | 2.52 | 2.0E-74 | AL355092.1 | NT | Novel human gene mapping to chomosome 22 |
| 6919 | 25813 | 32419 | 1.88 | 2.0E-74 | BE711134.1 | EST_HUMAN | RC6-HT0678-220500-011-C03 HT0678 Homo sapiens cDNA |
| 6017 | 25816 | 32518 | 1.77 | 2.0E-74 | 11439587 | NT | Homo sapiens PDZ-73 protein (PDZ-73/NY-CO-38), mRNA |
| 6017 | 25816 | 32519 | 1.77 | 2.0E-74 | 11439587 | NT | Homo sapiens PDZ-73 protein (PDZ-73/NY-CO-38), mRNA |
| 6087 | 25816 | 32518 | 2.78 | 2.0E-74 | 11439587 | NT | Homo sapiens PDZ-73 protein (PDZ-73/NY-CO-38), mRNA |
| 6087 | 25816 | 32519 | 2.78 | 2.0E-74 | 11439587 | NT | Homo sapiens PDZ-73 protein (PDZ-73/NY-CO-38), mRNA |
| 7252 | 20335 | 33784 | 2.5 | 2.0E-74 | BF030788.1 | EST_HUMAN | 601557524F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827549 5' |
| 8126 | 21208 | 34728 | 1.8 | 2.0E-74 | AB037816.1 | NT | Homo sapiens mRNA for KIAA1395 protein, partial cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9582 | 22724 | 36294 | 5.27 | 2.0E-74 | AL163204.2 | NT | *Homo sapiens chromosome 21 segment HS21C004* |
| 12526 | 25359 | | 2.87 | 2.0E-74 | AA196181.1 | EST_HUMAN | zp96a06.s1 Stratagene muscle 937209 Homo sapiens cDNA clone IMAGE:628018 3' |
| 13169 | 26176 | | 1.16 | 2.0E-74 | BF002855.1 | EST_HUMAN | 7g50a08.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:3309878 3' |
| 54 | 13293 | 26308 | 1.5 | 1.0E-74 | 7657334 | NT | Homo sapiens Misshapen/NIK-related kinase (MINK), mRNA |
| 347 | 13558 | 26586 | 3.71 | 1.0E-74 | AW816405.1 | EST_HUMAN | QV4-ST0234-181199-037-f05 ST0234 Homo sapiens cDNA |
| 512 | 13706 | 26734 | 1.8 | 1.0E-74 | 8922829 | NT | Homo sapiens hypothetical protein FLJ11026 (FLJ11026), mRNA |
| 519 | 13712 | 26739 | 2.59 | 1.0E-74 | X02344.1 | NT | Homo sapiens beta 2 gene |
| 614 | 13803 | 26823 | 1.28 | 1.0E-74 | 4508020 | NT | Homo sapiens zinc finger protein 259 (ZNF259) mRNA |
| 804 | 13984 | 27036 | 0.86 | 1.0E-74 | AB020640.1 | NT | Homo sapiens mRNA for KIAA0833 protein, partial cds |
| 1024 | 14195 | 27253 | 2.26 | 1.0E-74 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 2301 | 15433 | 28566 | 6.03 | 1.0E-74 | AB002059.1 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 3209 | 16383 | 29394 | 2.82 | 1.0E-74 | 4758697 | NT | Homo sapiens *mannosidase, alpha, class 2A, member* 1 (MAN2A1), mRNA |
| 3460 | 16627 | 29646 | 1.29 | 1.0E-74 | AA258549.1 | EST_HUMAN | zr60c01.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:667776 5' |
| 3460 | 16627 | 29647 | 1.29 | 1.0E-74 | AA258549.1 | EST_HUMAN | zr60c01.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:667776 5' |
| 4031 | 17187 | 30197 | 0.84 | 1.0E-74 | 4504116 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 4031 | 17187 | 30198 | 0.84 | 1.0E-74 | 4504116 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 4075 | 17231 | 30237 | 5.41 | 1.0E-74 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 4175 | 17325 | 30316 | 0.86 | 1.0E-74 | BE083080.1 | EST_HUMAN | RC2-BT0642-270300-019-f06 BT0642 Homo sapiens cDNA |
| 4382 | 17525 | 30506 | 0.87 | 1.0E-74 | BE467769.1 | EST_HUMAN | hz73h08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3213663 3' similar to WP:B0511.12 CE17351 ; |
| 6844 | 19997 | 33404 | 1.29 | 1.0E-74 | M89914.1 | NT | Human neurofibromin (NF1) gene, complete cds |
| 7804 | 20860 | 34353 | 1.05 | 1.0E-74 | 11417977 | NT | Homo sapiens KIAA0852 protein (KIAA0852), mRNA |
| 8246 | 21328 | 34844 | 1.27 | 1.0E-74 | BE549105.1 | EST_HUMAN | 601070088F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3456260 5' |
| 8246 | 21328 | 34845 | 1.27 | 1.0E-74 | BE549105.1 | EST_HUMAN | 601070088F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3456260 5' |
| 9005 | 22084 | 35627 | 7.81 | 1.0E-74 | AF214562.1 | NT | Homo sapiens tracheal epithelium enriched protein (PLUNC) gene, complete cds |
| 9034 | 22113 | 35656 | 0.67 | 1.0E-74 | BF351951.1 | EST_HUMAN | MR0-HT0559-230500-021-a03 HT0559 Homo sapiens cDNA |
| 10445 | 23480 | 37086 | 0.65 | 1.0E-74 | AJ251550.1 | NT | Homo sapiens partial AK155 gene for AK155 protein, exons 1-3 and joined CDS |
| 10445 | 23480 | 37087 | 0.65 | 1.0E-74 | AJ251550.1 | NT | Homo sapiens partial AK155 gene for AK155 protein, exons 1-3 and joined CDS |
| 10699 | 23732 | 37337 | 1.77 | 1.0E-74 | 11420549 | NT | Homo sapiens hypothetical protein FLJ10783 (FLJ10783), mRNA |
| 12154 | 25124 | 38826 | 1.94 | 1.0E-74 | 11417856 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2), mRNA |
| 12238 | 25182 | | 4.97 | 1.0E-74 | 11417856 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2), mRNA |
| 12386 | 15433 | 28566 | 1.61 | 1.0E-74 | AB002059.1 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 12925 | 25610 | | 1.38 | 1.0E-74 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2709 | 15827 | | 5.1 | 8.0E-75 | AF176228.1 | NT | Homo sapiens DNA cytosine-5 methyltransferase 3B (DNMT3B) mRNA, complete cds |
| 12552 | 25375 | | 3.07 | 8.0E-76 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 2395 | 15526 | 28664 | 1.25 | 6.0E-75 | AI817415.1 | EST_HUMAN | wk38a08.x1 NCI_CGAP_Pr22 Homo sapiens cDNA clone IMAGE:2417654 3' similar to gb:M14123_cds4 RETROVIRUS-RELATED POL POLYPROTEIN (HUMAN); |
| 11780 | 24770 | 38466 | 1.39 | 6.0E-75 | BE791831.1 | EST_HUMAN | 601586109F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3940130 5' |
| 9109 | 22188 | 35731 | 1.09 | 5.0E-75 | BE272325.1 | EST_HUMAN | 601126068F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:2989865 5' |
| 9317 | 22393 | 35944 | 0.77 | 5.0E-75 | AA132611.1 | EST_HUMAN | zo17e08.r1 Stratagene colon (#937204) Homo sapiens cDNA clone IMAGE:587174 5' |
| 9395 | 22470 | 36034 | 0.47 | 5.0E-75 | BE561655.1 | EST_HUMAN | 601346909F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3687458 5' |
| 9395 | 22470 | 36035 | 0.47 | 5.0E-75 | BE561655.1 | EST_HUMAN | 601346909F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3687458 5' |
| 9573 | 22715 | 36283 | 1.1 | 5.0E-75 | BF690254.1 | EST_HUMAN | 602186616T1 NIH_MGC_49 Homo sapiens cDNA clone IMAGE:4298738 3' |
| 10439 | 23474 | 37078 | 2.64 | 5.0E-75 | AI638623.1 | EST_HUMAN | tt31c12.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2242390 3' similar to TR:P97361 P97361 HYPOTHETICAL 20.1 KD PROTEIN ; |
| 115 | 13346 | 26373 | 2.1 | 4.0E-75 | BE081333.1 | EST_HUMAN | QV1-BT0632-210200-079-e02 BT0632 Homo sapiens cDNA |
| 471 | 13666 | | 1.68 | 4.0E-75 | N36757.1 | EST_HUMAN | yx90h08.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:269055 5' |
| 1805 | 14954 | 28048 | 1.08 | 4.0E-76 | AW897230.1 | EST_HUMAN | CM0-NN0057-150400-335-a11 NN0057 Homo sapiens cDNA |
| 2910 | 16088 | 29101 | 5.64 | 4.0E-75 | BE409464.1 | EST_HUMAN | 601303866F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638344 5' |
| 5646 | 18840 | 32120 | 0.68 | 4.0E-75 | 11417946 | NT | Homo sapiens NIPSNAP, C. elegans, homolog 1 (NIPSNAP1), mRNA |
| 5646 | 18840 | 32121 | 0.68 | 4.0E-75 | 11417946 | NT | Homo sapiens NIPSNAP, C. elegans, homolog 1 (NIPSNAP1), mRNA |
| 6399 | 19568 | 32929 | 5.18 | 4.0E-75 | 5579457 | NT | Homo sapiens eukaryotic translation initiation factor 3, subunit 8 (110kD) (EIF3S8), mRNA |
| 6898 | 20048 | 33458 | 1.4 | 4.0E-75 | 11417946 | NT | Homo sapiens NIPSNAP, C. elegans, homolog 1 (NIPSNAP1), mRNA |
| 6898 | 20048 | 33459 | 1.4 | 4.0E-75 | 11417946 | NT | Homo sapiens NIPSNAP, C. elegans, homolog 1 (NIPSNAP1), mRNA |
| 10924 | 24007 | 37642 | 10.52 | 4.0E-76 | 7669505 | NT | Homo sapiens myosin, heavy polypeptide 1, skeletal muscle, adult (MYH1), mRNA |
| 1027 | 14198 | 27256 | 3.6 | 3.0E-75 | AF157623.1 | NT | Homo sapiens HTRA serine protease (PRSS11) gene, complete cds |
| 1028 | 14198 | 27256 | 3.59 | 3.0E-75 | AF157623.1 | NT | Homo sapiens HTRA serine protease (PRSS11) gene, complete cds |
| 1883 | 15027 | 28134 | 2.23 | 3.0E-75 | AB011153.1 | NT | Homo sapiens mRNA for KIAA0581 protein, partial cds |
| 2180 | 15315 | 28444 | 1.44 | 3.0E-75 | 4507334 | NT | Homo sapiens synaptojanin 1 (SYNJ1), mRNA |
| 2494 | 15621 | 28740 | 4.39 | 3.0E-75 | 4759153 | NT | Homo sapiens synaptosomal-associated protein, 29kD (SNAP29) mRNA |
| 3086 | 16262 | 29279 | 0.96 | 3.0E-75 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 3258 | 16432 | 29449 | 1.09 | 3.0E-75 | AB011153.1 | NT | Homo sapiens mRNA for KIAA0581 protein, partial cds |
| 3431 | 16599 | 29616 | 0.93 | 3.0E-75 | M72393.1 | NT | Human calcium-dependent phospholipid-binding protein (PLA2) mRNA, complete cds |
| 3431 | 16599 | 29617 | 0.93 | 3.0E-75 | M72393.1 | NT | Human calcium-dependent phospholipid-binding protein (PLA2) mRNA, complete cds |
| 3833 | 16993 | 29995 | 0.6 | 3.0E-75 | M72393.1 | NT | Human calcium-dependent phospholipid-binding protein (PLA2) mRNA, complete cds |
| 4283 | 17428 | 30418 | 2.92 | 3.0E-75 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 5365 | 18568 | 31434 | 1.15 | 3.0E-75 | 11420956 | NT | Homo sapiens adaptor-related protein complex 1, sigma 2 subunit (AP1S2), mRNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5365 | 18568 | 31435 | 1.15 | 3.0E-75 | 11420956 | NT | Homo sapiens adaptor-related protein complex 1, sigma 2 subunit (AP1S2), mRNA |
| 6637 | 19796 | 33185 | 0.59 | 3.0E-75 | AF123074.1 | NT | Homo sapiens cytoplasmic dynein intermediate chain 1 mRNA, complete cds |
| 6637 | 19796 | 33186 | 0.59 | 3.0E-75 | AF123074.1 | NT | Homo sapiens cytoplasmic dynein intermediate chain 1 mRNA, complete cds |
| 6909 | 20224 | 33654 | 1.57 | 3.0E-75 | 11526319 | NT | Homo sapiens HIR (histone cell cycle regulation defective, S. cerevisiae) homolog A (HIRA), mRNA |
| 6909 | 20224 | 33655 | 1.57 | 3.0E-75 | 11526319 | NT | Homo sapiens HIR (histone cell cycle regulation defective, S. cerevisiae) homolog A (HIRA), mRNA |
| 7285 | 20368 | 33821 | 4.12 | 3.0E-75 | 7662209 | NT | Homo sapiens KIAA0623 gene product (KIAA0623), mRNA |
| 7285 | 20368 | 33822 | 4.12 | 3.0E-75 | 7662209 | NT | Homo sapiens KIAA0623 gene product (KIAA0623), mRNA |
| 7800 | 20856 | 34346 | 2.66 | 3.0E-75 | 4885632 | NT | Homo sapiens Oncogene TIM (TIM) mRNA |
| 7800 | 20856 | 34347 | 2.66 | 3.0E-75 | 4885632 | NT | Homo sapiens Oncogene TIM (TIM) mRNA |
| 9185 | 22263 | 35805 | 1.33 | 3.0E-76 | 11420804 | NT | Homo sapiens snail 1 (drosophila homolog), zinc finger protein (SNAI1), mRNA |
| 9880 | 22920 | 36504 | 0.83 | 3.0E-75 | 11420222 | NT | Homo sapiens Drosophila Kelch like protein (DKELCHL), mRNA |
| 5790 | 18982 | | 1.34 | 2.0E-75 | AV734680.1 | EST_HUMAN | AV734680 cdA Homo sapiens cDNA clone cdABED02 5' |
| 8950 | 22029 | 35570 | 1.36 | 2.0E-75 | AI311783.1 | EST_HUMAN | qo91e02.x1 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1915898 3' similar to TR:Q69386 Q69386 POL/ENV GENE ; |
| 2377 | 15508 | 28635 | 10.98 | 1.0E-76 | AW168135.1 | EST_HUMAN | xg60d02.x1 NCI_CGAP_Ut4 Homo sapiens cDNA clone IMAGE:2632707 3' similar to contains PTR7.t1 PTR7 repetitive element ; |
| 3012 | 16188 | 29213 | 2.95 | 1.0E-75 | X62221.1 | NT | H.sapiens ERCC2 gene, exons 1 & 2 (partial) |
| 7702 | 20821 | 34311 | 0.64 | 1.0E-75 | BE082528.1 | EST_HUMAN | RC5-BT0640-020300-031-H03 BT0640 Homo sapiens cDNA |
| 7762 | 20821 | 34312 | 0.64 | 1.0E-75 | BE082528.1 | EST_HUMAN | RC5-BT0640-020300-031-H03 BT0640 Homo sapiens cDNA |
| 8609 | 21689 | | 3.12 | 1.0E-75 | AA399270.1 | EST_HUMAN | zt57h03.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:726485 3' similar to gb:M13932 40S RIBOSOMAL PROTEIN S17 (HUMAN); |
| 9628 | 22683 | 36253 | 3.95 | 1.0E-75 | BF313645.1 | EST_HUMAN | 601900294F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4129678 5' |
| 9628 | 22683 | 36254 | 3.95 | 1.0E-75 | BF313645.1 | EST_HUMAN | 601900294F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4129678 5' |
| 11122 | 24194 | | 6.68 | 1.0E-75 | AA684377.1 | EST_HUMAN | ac77b08.s1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:868599 3' |
| 11351 | 24413 | 38067 | 2.22 | 1.0E-75 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 12440 | 18502 | 31538 | 1.97 | 1.0E-75 | BE894192.1 | EST_HUMAN | 601437130F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3922303 5' |
| 45 | 13284 | 26292 | 0.89 | 9.0E-76 | AI652648.1 | EST_HUMAN | wb30b10.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2307163 3' similar to TR:O75235 O75235 TRAP1 ; |
| 45 | 13284 | 26293 | 0.89 | 9.0E-76 | AI652648.1 | EST_HUMAN | wb30b10.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2307163 3' similar to TR:O75235 O75235 TRAP1 ; |
| 2486 | 15613 | | 0.94 | 9.0E-76 | AA702415.1 | EST_HUMAN | zi85b07.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:447541 3' |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10105 | 23143 | 36741 | 5.44 | 9.0E-76 | M12937.1 | NT | Human ferritin Heavy subunit mRNA, complete cds |
| 961 | 14134 | 27194 | 1.18 | 8.0E-76 | 4504374 | NT | Homo sapiens H factor 1 (complement) (HF1) mRNA |
| 961 | 14134 | 27195 | 1.18 | 8.0E-76 | 4504374 | NT | Homo sapiens H factor 1 (complement) (HF1) mRNA |
| 2976 | 16152 | 29173 | 0.95 | 8.0E-76 | 7706724 | NT | Homo sapiens mediator (Sur2), mRNA |
| 6300 | 19473 | 32828 | 5.84 | 8.0E-76 | 11421442 | NT | Homo sapiens LIM domain kinase 1 (LIMK1), mRNA |
| 7658 | 20725 | 34200 | 1.17 | 8.0E-76 | 11435215 | NT | Homo sapiens serine/threonine kinase 2 (STK2), mRNA |
| 7739 | 20800 | 34289 | 1.05 | 8.0E-76 | 11419212 | NT | Homo sapiens mitochondrial carrier family protein (LOC55972), mRNA |
| 8492 | 21573 | 35110 | 0.69 | 8.0E-76 | 11416961 | NT | Homo sapiens AIM-1 protein (LOC51151), mRNA |
| 10589 | 23624 | 37231 | 1.26 | 8.0E-76 | M13792.1 | NT | Human adenosine deaminase (ADA) gene, complete cds |
| 10903 | 23987 | 37619 | 4.29 | 8.0E-76 | 10442821 | NT | Homo sapiens baculoviral IAP repeat-containing 6 (BIRC6), mRNA |
| 12824 | 25550 |  | 2.51 | 8.0E-76 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 797 | 13976 | 27029 | 1.69 | 7.0E-76 | 5016092 | NT | Homo sapiens dihydrolipoamide dehydrogenase (E3 component of pyruvate dehydrogenase complex, 2-oxo-glutarate complex, branched chain keto acid dehydrogenase complex) (DLD) mRNA |
| 3366 | 16638 | 29551 | 3.84 | 7.0E-76 | AF056490.1 | NT | Homo sapiens cAMP-specific phosphodiesterase 8A (PDE8A) mRNA, partial cds |
| 3372 | 16544 | 29558 | 9.08 | 7.0E-76 | 4505052 | NT | Homo sapiens lymphocyte antigen 75 (LY75) mRNA, and translated products |
| 4491 | 17631 | 30612 | 5.52 | 7.0E-76 | 4507184 | NT | Homo sapiens sepiapterin reductase (7,8-dihydrobiopterin:NADP+ oxidoreductase) (SPR) mRNA |
| 4491 | 17631 | 30613 | 5.52 | 7.0E-76 | 4507184 | NT | Homo sapiens sepiapterin reductase (7,8-dihydrobiopterin:NADP+ oxidoreductase) (SPR) mRNA |
| 1262 | 14419 |  | 37.29 | 6.0E-76 | BE396253.1 | EST_HUMAN | 601312019F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3658757 5' |
| 11753 | 23930 | 37565 | 2.52 | 6.0E-76 | BE273201.1 | EST_HUMAN | 601142253F1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:3506029 5' |
| 1997 | 15138 | 28243 | 9.61 | 5.0E-76 | D63874.1 | NT | Human mRNA for HMG-1, complete cds |
| 1997 | 15138 | 28244 | 9.61 | 5.0E-76 | D63874.1 | NT | Human mRNA for HMG-1, complete cds |
| 1997 | 15138 | 28245 | 9.61 | 5.0E-76 | D63874.1 | NT | Human mRNA for HMG-1, complete cds |
| 3278 | 16452 | 29473 | 0.64 | 4.0E-76 | BE814098.1 | EST_HUMAN | QV3-BN0047-270700-283-g06 BN0047 Homo sapiens cDNA |
| 5384 | 18586 | 31455 | 1.13 | 4.0E-76 | BE783412.1 | EST_HUMAN | 601471725F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3874470 5' |
| 10230 | 23265 | 36854 | 5.48 | 4.0E-76 | D81625.1 | EST_HUMAN | HUM178G01B Human fetal brain (TFujiwara) Homo sapiens cDNA clone GEN-178G01 5' |
| 10230 | 23265 | 36855 | 5.48 | 4.0E-76 | D81625.1 | EST_HUMAN | HUM178G01B Human fetal brain (TFujiwara) Homo sapiens cDNA clone GEN-178G01 5' |
| 646 | 13831 | 26856 | 2.01 | 3.0E-76 | BF516262.1 | EST_HUMAN | UI-H-BW1-anz-b-04-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3083862 3' |
| 646 | 13831 | 26857 | 2.01 | 3.0E-76 | BF516262.1 | EST_HUMAN | UI-H-BW1-anz-b-04-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3083862 3' |
| 1629 | 14781 | 27866 | 8.04 | 3.0E-76 | 4503476 | NT | Homo sapiens eukaryotic translation elongation factor 1 beta 2 (EEF1B2) mRNA |
| 1629 | 14781 | 27867 | 8.04 | 3.0E-76 | 4503476 | NT | Homo sapiens eukaryotic translation elongation factor 1 beta 2 (EEF1B2) mRNA |
| 3515 | 16681 | 29691 | 5.75 | 3.0E-76 | BF375689.1 | EST_HUMAN | RC5-ST0300-180100-033-A03 ST0300 Homo sapiens cDNA |
| 3515 | 16681 | 29692 | 5.75 | 3.0E-76 | BF375689.1 | EST_HUMAN | RC5-ST0300-180100-033-A03 ST0300 Homo sapiens cDNA |
| 5352 | 18480 | 38822 | 1.82 | 3.0E-76 | Z41314.1 | EST_HUMAN | HSCZQD042 normalized infant brain cDNA Homo sapiens cDNA clone c-zqd04 3' |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5851 | 19041 | 32347 | 0.92 | 3.0E-76 | AA160611.1 | EST_HUMAN | zo73c07.r1 Stratagene pancreas (#937208) Homo sapiens cDNA clone IMAGE:592524 5' similar to gb:L32976 MIXED LINEAGE KINASE 1 (HUMAN); |
| 6110 | 19290 | 32625 | 0.61 | 3.0E-76 | AW027705.1 | EST_HUMAN | wv75c05.x1 Soares_thymus_NHFTh Homo sapiens cDNA clone IMAGE:2535368 3' |
| 6498 | 19664 | 33027 | 8.19 | 3.0E-76 | AF286598.1 | NT | Homo sapiens angiostatin binding protein 1 mRNA, complete cds |
| 8344 | 21425 | 34951 | 1.27 | 3.0E-76 | N42671.1 | EST_HUMAN | yy20g10.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:271842 5' |
| 9917 | 22957 | 36544 | 3.03 | 3.0E-76 | AW299353.1 | EST_HUMAN | xs49h01.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2773009 3' |
| 9942 | 22981 | 36572 | 1.08 | 3.0E-76 | AA442309.1 | EST_HUMAN | zv54d11.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:757461 5' |
| 9942 | 22981 | 36573 | 1.08 | 3.0E-76 | AA442309.1 | EST_HUMAN | zv54d11.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:757461 5' |
| 12144 | 25943 | 31763 | 2.1 | 3.0E-76 | AW967984.1 | EST_HUMAN | EST380059 MAGE resequences, MAGJ Homo sapiens cDNA |
| 12251 | 26184 | 31642 | 6.95 | 3.0E-76 | AW956455.1 | EST_HUMAN | EST368525 MAGE resequences, MAGD Homo sapiens cDNA |
| 292 | 13509 | 26544 | 1.11 | 2.0E-76 | D84295.1 | NT | Human mRNA for possible protein TPRDII, complete cds |
| 352 | 13563 | 26590 | 3.21 | 2.0E-76 | D84295.1 | NT | Human mRNA for possible protein TPRDII, complete cds |
| 352 | 13563 | 26591 | 3.21 | 2.0E-76 | D84295.1 | NT | Human mRNA for possible protein TPRDII, complete cds |
| 473 | 13668 |  | 0.96 | 2.0E-76 | 4557662 | NT | Homo sapiens immunoglobulin (CD79A) binding protein 1 (IGBP1) mRNA |
| 603 | 13792 | 26812 | 1.07 | 2.0E-76 | 4503944 | NT | Homo sapiens glucagon (GCG) mRNA |
| 1066 | 14222 | 27281 | 1.66 | 2.0E-76 | 4758053 | NT | Homo sapiens cAMP responsive element binding protein 1 (CREB1) mRNA |
| 1566 | 14719 | 27799 | 11.31 | 2.0E-76 | 4504028 | NT | Homo sapiens GM2 ganglioside activator protein (GM2A) mRNA |
| 1566 | 14719 | 27800 | 11.31 | 2.0E-76 | 4504028 | NT | Homo sapiens GM2 ganglioside activator protein (GM2A) mRNA |
| 1982 | 15125 | 28227 | 0.99 | 2.0E-76 | AA253954.1 | EST_HUMAN | zs60h11.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:701925 3' |
| 2904 | 16082 | 29097 | 2.13 | 2.0E-76 | P23266 | SWISSPROT | OLFACTORY RECEPTOR-LIKE PROTEIN F5 |
| 3369 | 16541 | 29555 | 2.21 | 2.0E-76 | AA445992.1 | EST_HUMAN | zw64e02.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:780986 3' similar to SW:ITB5_HUMAN P18084 INTEGRIN BETA-5 SUBUNIT PRECURSOR. ; |
| 3369 | 16541 | 29556 | 2.21 | 2.0E-76 | AA445992.1 | EST_HUMAN | zw64e02.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:780986 3' similar to SW:ITB5_HUMAN P18084 INTEGRIN BETA-5 SUBUNIT PRECURSOR. ; |
| 3565 | 16730 | 29746 | 0.93 | 2.0E-76 | AI821149.1 | EST_HUMAN | ac83b02.y5 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:869163 5' similar to TR:O14591 O14591 SIMILARITY TO P22059 ; |
| 4254 | 13509 | 26544 | 1.01 | 2.0E-76 | D84295.1 | NT | Human mRNA for possible protein TPRDII, complete cds |
| 4653 | 17789 | 30773 | 0.91 | 2.0E-76 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 5062 | 18190 | 31165 | 11.15 | 2.0E-76 | AW879618.1 | EST_HUMAN | QV3-OT0028-220300-132-b11 OT0028 Homo sapiens cDNA |
| 5163 | 18285 | 31249 | 3.13 | 2.0E-76 | 6174586 | NT | Homo sapiens murine retrovirus integration site 1 homolog (MRVI1) mRNA |
| 5424 | 18625 |  | 2.99 | 2.0E-76 | AF127845.1 | NT | Gorilla gorilla olfactory receptor (GGO18) gene, partial cds |
| 5736 | 18929 | 32226 | 4.83 | 2.0E-76 | AB029004.1 | NT | Homo sapiens mRNA for KIAA1081 protein, partial cds |
| 7570 | 20642 | 34119 | 0.66 | 2.0E-76 | 11421326 | NT | Homo sapiens KIAA0783 gene product (KIAA0783), mRNA |
| 7592 | 20663 | 34139 | 0.69 | 2.0E-76 | 11426908 | NT | Homo sapiens A kinase (PRKA) anchor protein 10 (AKAP10), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7840 | 20895 | 34397 | 1.82 | 2.0E-76 | 11427410 | NT | Homo sapiens TPCR86 protein (HSTPCR86P), mRNA |
| 10489 | 23524 | 37134 | 1.42 | 2.0E-76 | 11437211 | NT | Homo sapiens similar to ribosomal protein S26 (H. sapiens) (LOC63150), mRNA |
| 11161 | 24232 | 37862 | 2.44 | 2.0E-76 | 7549807 | NT | Homo sapiens HIRA interacting protein 4 (dnaJ-like) (HIRIP4), mRNA |
| 4412 | 17654 | 30639 | 2.49 | 1.0E-76 | D63874.1 | NT | Human mRNA for HMG-1, complete cds |
| 4412 | 17554 | 30540 | 2.49 | 1.0E-76 | D63874.1 | NT | Human mRNA for HMG-1, complete cds |
| 5564 | 18761 | 31801 | 5.93 | 1.0E-76 | BE796537.1 | EST_HUMAN | 601589896F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3944302 5' |
| 6374 | 19543 |  | 0.7 | 1.0E-76 | AA333207.1 | EST_HUMAN | EST37301 Embryo, 8 week I Homo sapiens cDNA 5' end |
| 7063 | 20116 | 33530 | 4.66 | 9.0E-77 | BE889525.1 | EST_HUMAN | 601512435F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913737 5' |
| 13003 | 25652 |  | 1.98 | 9.0E-77 | BE410354.1 | EST_HUMAN | 601302333F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3636753 5' |
| 192 | 13414 | 26443 | 0.77 | 8.0E-77 | R83144.1 | EST_HUMAN | yp11h02.r1 Soares breast 3NbHBst Homo sapiens cDNA clone IMAGE:187155 5' similar to SP:ANKB_HUMAN Q01484 ANKYRIN, BRAIN VARIANT 1 ; |
| 4644 | 17780 | 30762 | 1.41 | 8.0E-77 | BF205181.1 | EST_HUMAN | 601866926F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4109503 5' |
| 5569 | 18766 | 31807 | 1.37 | 8.0E-77 | 4506230 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, non-ATPase, 7 (Mov34 homolog) (PSMD7) mRNA |
| 11669 | 24746 | 38438 | 1.78 | 8.0E-77 | AA019770.1 | EST_HUMAN | ze62e02.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:363578 5' |
| 11669 | 24746 | 38439 | 1.78 | 8.0E-77 | AA019770.1 | EST_HUMAN | ze62e02.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:363578 5' |
| 12979 | 25637 | 31982 | 32.5 | 8.0E-77 | R00245.1 | EST_HUMAN | ye69f04.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:123007 3' similar to contains MER10 repetitive element ; |
| 1983 | 15126 | 28228 | 2.2 | 7.0E-77 | AA625755.1 | EST_HUMAN | zu91g01.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:745392 3' |
| 2482 | 15609 | 28733 | 2.78 | 7.0E-77 | 4505944 | NT | Homo sapiens polymerase (RNA) II (DNA directed) polypeptide E (25kD) (POLR2E) mRNA |
| 2482 | 15609 | 28734 | 2.78 | 7.0E-77 | 4505944 | NT | Homo sapiens polymerase (RNA) II (DNA directed) polypeptide E (25kD) (POLR2E) mRNA |
| 273 | 13491 | 26522 | 4 | 6.0E-77 | 4504600 | NT | Homo sapiens interferon (alpha, beta and omega) receptor 2 (IFNAR2) mRNA |
| 1165 | 14329 | 27384 | 1.05 | 6.0E-77 | AW957753.1 | EST_HUMAN | EST369823 MAGE resequences, MAGE Homo sapiens cDNA |
| 1574 | 14727 | 27808 | 3.29 | 6.0E-77 | AI204066.1 | EST_HUMAN | qe77h12.x1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:1745063 3' |
| 1264 | 14421 | 27486 | 2.89 | 5.0E-77 | AF041015.1 | NT | 7 Homo sapiens glucokinase (GCK) gene, exon 2 |
| 1391 | 14545 | 27621 | 3.46 | 5.0E-77 | 4557250 | NT | Homo sapiens disintegrin and metalloprotease domain 10 (ADAM10) mRNA |
| 2749 | 15866 | 28977 | 1.75 | 5.0E-77 | AF162666.1 | NT | Homo sapiens tousled-like kinase 1 (TLK1) mRNA, complete cds |
| 2822 | 15936 | 29046 | 1.58 | 5.0E-77 | 4503160 | NT | Homo sapiens cullin 1 (CUL1) mRNA |
| 3611 | 16775 | 29791 | 0.65 | 5.0E-77 | 8394518 | NT | Homo sapiens ubiquitin specific protease 18 (USP18), mRNA |
| 4825 | 17958 | 30944 | 0.97 | 5.0E-77 | 5031660 | NT | Homo sapiens EGF-like repeats and discoidin I-like domains 3 (EDIL3), mRNA |
| 4825 | 17958 | 30945 | 0.97 | 5.0E-77 | 5031660 | NT | Homo sapiens EGF-like repeats and discoidin I-like domains 3 (EDIL3), mRNA |
| 5052 | 18180 | 31156 | 3.57 | 5.0E-77 | AL043953.1 | EST_HUMAN | DKFZp434G1728_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434G1728 5' |
| 6922 | 20237 | 33671 | 0.65 | 5.0E-77 | M13975.1 | NT | Homo sapiens protein kinase C beta-II type (PRKCB1) mRNA, complete cds |
| 7480 | 20555 | 34027 | 0.59 | 5.0E-77 | X98296.1 | NT | H.sapiens mRNA for ubiquitin hydrolase |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe. SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7767 | 20555 | 34027 | 0.72 | 5.0E-77 | X98296.1 | NT | H.sapiens mRNA for ubiquitin hydrolase |
| 8563 | 21644 | 35183 | 1.21 | 5.0E-77 | 11428849 | NT | Homo sapiens 3-hydroxyisobutyryl-Coenzyme A hydrolase (HIBCH), mRNA |
| 8563 | 21644 | 35184 | 1.21 | 5.0E-77 | 11428849 | NT | Homo sapiens 3-hydroxyisobutyryl-Coenzyme A hydrolase (HIBCH), mRNA |
| 9769 | 22765 | 36335 | 2.61 | 5.0E-77 | 11421928 | NT | Homo sapiens sorting nexin 5 (SNX5), mRNA |
| 9769 | 22765 | 36336 | 2.61 | 5.0E-77 | 11421928 | NT | Homo sapiens sorting nexin 5 (SNX5), mRNA |
| 10708 | 23741 | 37346 | 0.97 | 5.0E-77 | AB002297.1 | NT | Human mRNA for KIAA0299 gene, partial cds |
| 10708 | 23741 | 37347 | 0.97 | 5.0E-77 | AB002297.1 | NT | Human mRNA for KIAA0299 gene, partial cds |
| 2029 | 15170 | 28277 | 1.39 | 3.0E-77 | 5730038 | NT | Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA |
| 2029 | 15170 | 28278 | 1.39 | 3.0E-77 | 5730038 | NT | Homo sapiens SET domain and mariner transposase fusion gene (SETMAR) mRNA |
| 10496 | 23531 | 37139 | 0.9 | 3.0E-77 | H65167.1 | EST_HUMAN | yu64g01.r1 Weizmann Olfactory Epithelium Homo sapiens cDNA clone IMAGE:238608 5' similar to SP:S17447 S17447 PROBABLE LIGAND-BINDING PROTEIN RY2G5 - ; |
| 10496 | 23531 | 37140 | 0.9 | 3.0E-77 | H65167.1 | EST_HUMAN | yu64g01.r1 Weizmann Olfactory Epithelium Homo sapiens cDNA clone IMAGE:238608 5' similar to SP:S17447 S17447 PROBABLE LIGAND-BINDING PROTEIN RY2G5 - ; |
| 11116 | 24187 | 37819 | 2.83 | 3.0E-77 | BF359917.1 | EST_HUMAN | PM3-MT0078-080800-005-g03 MT0078 Homo sapiens cDNA |
| 1383 | 14538 | 27612 | 1.74 | 2.0E-77 | AV764617.1 | EST_HUMAN | AV764617 MDS Homo sapiens cDNA clone MDSBTF10 5' |
| 1464 | 14618 | 27702 | 9.74 | 2.0E-77 | AW997712.1 | EST_HUMAN | RC3-BN0053-170200-011-h01 BN0053 Homo sapiens cDNA |
| 2157 | 15293 | 28419 | 1.1 | 2.0E-77 | L41826.1 | NT | Homo sapiens CYP17 gene, 5' end |
| 2170 | 15305 | 28432 | 2.75 | 2.0E-77 | 7706315 | NT | Homo sapiens CGI-79 protein (LOC51634), mRNA |
| 2659 | 16067 | 28895 | 1.69 | 2.0E-77 | AB037836.1 | NT | Homo sapiens mRNA for KIAA1415 protein, partial cds |
| 2659 | 16067 | 28896 | 1.69 | 2.0E-77 | AB037836.1 | NT | Homo sapiens mRNA for KIAA1415 protein, partial cds |
| 4143 | 17295 | 30287 | 1.98 | 2.0E-77 | BE044316.1 | EST_HUMAN | ho43b05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:3040113 3' similar to SW:GAG2_HUMAN P10264 RETROVIRUS-RELATED GAG POLYPROTEIN ; |
| 4534 | 17672 | 30656 | 0.67 | 2.0E-77 | AI613519.1 | EST_HUMAN | tw22g02.x1 NCI_CGAP_Brn52 Homo sapiens cDNA clone IMAGE:2260466 3' similar to TR:O65245 O65245 F21E10.7 PROTEIN. ; |
| 4534 | 17672 | 30657 | 0.67 | 2.0E-77 | AI613519.1 | EST_HUMAN | tw22g02.x1 NCI_CGAP_Brn52 Homo sapiens cDNA clone IMAGE:2260466 3' similar to TR:O65245 O65245 F21E10.7 PROTEIN. ; |
| 4891 | 18021 | 31006 | 2.34 | 2.0E-77 | AA653025.1 | EST_HUMAN | ns68g12.s1 NCI_CGAP_Pr2 Homo sapiens cDNA clone IMAGE:1188838 similar to SW:RL29_HUMAN P47914 60S RIBOSOMAL PROTEIN L29. [1] ;contains element MSR1 repetitive element ; |
| 6075 | 19257 | 32586 | 2.08 | 2.0E-77 | BE298940.1 | EST_HUMAN | 601119852F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3029436 5' |
| 6301 | 19474 | 32829 | 1.86 | 2.0E-77 | BE787143.1 | EST_HUMAN | 601476802F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3879505 5' |
| 7325 | 20407 | 33869 | 15.02 | 2.0E-77 | AI833003.1 | EST_HUMAN | at74a09.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2377720 3' similar to TR:Q13311 Q13311 TAX1-BINDING PROTEIN TXBP151. [1] ; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8726 | 21806 | 35343 | 0.86 | 2.0E-77 | AI362707.1 | EST_HUMAN | qy70c09.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2017360 3' similar to WP:F29D11.1 CE05765 LOW DENSITY LIPID RECEPTOR-RLATED PROTEIN ; |
| 9728 | 22793 | 36366 | 5.68 | 2.0E-77 | U50321.1 | NT | Human protein kinase C substrate 80K-H (PRKCSH) gene, exon 7 |
| 9728 | 22793 | 36367 | 5.68 | 2.0E-77 | U50321.1 | NT | Human protein kinase C substrate 80K-H (PRKCSH) gene, exon 7 |
| 10199 | 23236 | 36825 | 0.47 | 2.0E-77 | BF310349.1 | EST_HUMAN | 601895183F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4124541 5' |
| 10199 | 23236 | 36826 | 0.47 | 2.0E-77 | BF310349.1 | EST_HUMAN | 601895183F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4124541 5' |
| 44 | 13282 | 26288 | 2.62 | 1.0E-77 | AB033102.1 | NT | Homo sapiens mRNA for KIAA1276 protein, partial cds |
| 44 | 13282 | 26289 | 2.62 | 1.0E-77 | AB033102.1 | NT | Homo sapiens mRNA for KIAA1276 protein, partial cds |
| 283 | 13501 | 26533 | 1.68 | 1.0E-77 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 283 | 13501 | 26534 | 1.68 | 1.0E-77 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 898 | 16025 | 27140 | 3.4 | 1.0E-77 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 898 | 16025 | 27141 | 3.4 | 1.0E-77 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 1969 | 15112 | 28213 | 1.36 | 1.0E-77 | AW058119.1 | EST_HUMAN | wv83e05.x1 Soares_thymus_NHFTh Homo sapiens cDNA clone IMAGE:2536160 3' |
| 2516 | 15641 | 28763 | 1.17 | 1.0E-77 | AB029024.1 | NT | Homo sapiens mRNA for KIAA1101 protein, complete cds |
| 3110 | 16286 | 29300 | 2.28 | 1.0E-77 | 4503300 | NT | Homo sapiens 2,4-dienoyl CoA reductase 1, mitochondrial (DECR1), mRNA |
| 4473 | 17613 | 30592 | 4.24 | 1.0E-77 | 7706299 | NT | Homo sapiens CGI-60 protein (LOC51628), mRNA |
| 4646 | 17782 | 30764 | 22.17 | 1.0E-77 | AJ229041.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3 |
| 4774 | 17909 | 30892 | 2.05 | 1.0E-77 | 6552322 | NT | Homo sapiens breast cancer 1, early onset (BRCA1), transcript variant BRCA1-exon4, mRNA |
| 4815 | 17948 | 30933 | 0.61 | 1.0E-77 | AI273014.1 | EST_HUMAN | qv09g04.x1 NCI_CGAP_Kid8 Homo sapiens cDNA clone IMAGE:1981110 3' |
| 6051 | 19233 | 32557 | 1.48 | 1.0E-77 | AF086944.1 | NT | Homo sapiens dynactin 1 (DCTN1) gene, exons 27 and 28 |
| 6051 | 19233 | 32558 | 1.48 | 1.0E-77 | AF086944.1 | NT | Homo sapiens dynactin 1 (DCTN1) gene, exons 27 and 28 |
| 6172 | 19348 | 32694 | 1.72 | 1.0E-77 | M25844.1 | NT | Human von Willebrand factor gene, exon 20 |
| 6577 | 19739 | 33120 | 1.1 | 1.0E-77 | 4885182 | NT | Homo sapiens diaphanous (Drosophila, homolog) 1 (DIAPH1), mRNA |
| 7198 | 20063 | 33473 | 15.97 | 1.0E-77 | 5881412 | NT | Homo sapiens elastin (supravalvular aortic stenosis, Williams-Beuren syndrome) (ELN), mRNA |
| 7844 | 20899 | 34402 | 0.82 | 1.0E-77 | 11420159 | NT | Homo sapiens cullin 1 (CUL1), mRNA |
| 7940 | 20990 | 34500 | 0.71 | 1.0E-77 | X04571.1 | NT | Human mRNA for kidney epidermal growth factor (EGF) precursor |
| 9465 | 22522 | 36085 | 0.83 | 1.0E-77 | X94354.1 | NT | H.sapiens DNA for Cone cGMP-PDE gene |
| 9465 | 22522 | 36086 | 0.83 | 1.0E-77 | X94354.1 | NT | H.sapiens DNA for Cone cGMP-PDE gene |
| 10742 | 23775 | 37387 | 1.05 | 1.0E-77 | AB029396.1 | NT | Homo sapiens hu-GlcAT-P mRNA for glucuronyltransferase, complete cds |
| 10742 | 23775 | 37388 | 1.05 | 1.0E-77 | AB029396.1 | NT | Homo sapiens hu-GlcAT-P mRNA for glucuronyltransferase, complete cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10773 | 23806 | 37429 | 2.76 | 9.0E-78 | AW753302.1 | EST_HUMAN | RC3-CT0254-280999-011-b05 CT0254 Homo sapiens cDNA |
| 6576 | 19738 | 33118 | 2.29 | 8.0E-78 | AW947061.1 | EST_HUMAN | RC2-ET0023-080500-012-e05 ET0023 Homo sapiens cDNA |
| 6576 | 19738 | 33119 | 2.29 | 8.0E-78 | AW947061.1 | EST_HUMAN | RC2-ET0023-080500-012-e05 ET0023 Homo sapiens cDNA |
| 88 | 13323 | 26351 | 1.66 | 6.0E-78 | AU118789.1 | EST_HUMAN | AU118789 HEMBA1 Homo sapiens cDNA clone HEMBA1004354 5' |
| 88 | 13323 | 26352 | 1.66 | 6.0E-78 | AU118789.1 | EST_HUMAN | AU118789 HEMBA1 Homo sapiens cDNA clone HEMBA1004354 5' |
| 3389 | 16559 | 29574 | 0.9 | 6.0E-78 | BF344101.1 | EST_HUMAN | 602016926F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4152511 5' |
| 6690 | 19848 |  | 2.54 | 6.0E-78 | 11432710 | NT | Homo sapiens GDNF family receptor alpha 1 (GFRA1), mRNA |
| 224 | 13446 | 26474 | 6.13 | 5.0E-78 | 11422486 | NT | Homo sapiens hypothetical protein FLJ11316 (FLJ11316), mRNA |
| 2629 | 15752 | 28867 | 5.71 | 5.0E-78 | AW673424.1 | EST_HUMAN | ba54h03.y3 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2900405 5' similar to WP:Y48B6A.6 CE22121 ; |
| 3472 | 16639 | 29659 | 5.09 | 5.0E-78 | M55586.1 | NT | Human collagenase type IV (CLG4) gene, exon 6 |
| 5528 | 18725 | 31741 | 2.73 | 5.0E-78 | AF038536.1 | NT | Homo sapiens Best's macular dystrophy related protein mRNA, partial cds |
| 5693 | 18887 | 32177 | 18.13 | 5.0E-78 | 11416585 | NT | Homo sapiens transforming growth factor, beta-induced, 68kD (TGFBI), mRNA |
| 7304 | 20386 | 33846 | 2.18 | 5.0E-78 | AW953120.1 | EST_HUMAN | EST365190 MAGE resequences, MAGB Homo sapiens cDNA |
| 9284 | 22360 | 35910 | 7.02 | 5.0E-78 | U60889.1 | NT | Human lysosomal alpha-mannosidase (manB) gene, exon 7 |
| 9285 | 22361 | 35911 | 2.94 | 5.0E-78 | BE960836.1 | EST_HUMAN | 601648061F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:3931887 5' |
| 1160 | 14324 | 27379 | 1.29 | 4.0E-78 | AL043314.2 | EST_HUMAN | DKFZp434N0323_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N0323 5' |
| 1547 | 14699 | 27778 | 1.81 | 4.0E-78 | AL355841.1 | NT | Novel human gene mapping to chomosome 22 |
| 2392 | 15523 | 28652 | 5.1 | 4.0E-78 | AF107405.1 | NT | Homo sapiens pre-mRNA splicing factor (SFRS3) mRNA, *complete cds* |
| 4442 | 17582 | 30560 | 6.17 | 4.0E-78 | 7656876 | NT | Homo sapiens syncytin (LOC30816), mRNA |
| 4896 | 18026 | 31012 | 1.2 | 4.0E-78 | 4505806 | NT | Homo sapiens phosphatidylinositol 4-kinase, catalytic, alpha polypeptide (PIK4CA) mRNA |
| 4896 | 18026 | 31013 | 1.2 | 4.0E-78 | 4505806 | NT | Homo sapiens phosphatidylinositol 4-kinase, catalytic, alpha polypeptide (PIK4CA) mRNA |
| 5888 | 19076 | 32385 | 1.25 | 4.0E-78 | 11420732 | NT | Homo sapiens SFRS protein kinase 2 (SRPK2), mRNA |
| 6302 | 19475 | 32830 | 0.71 | 4.0E-78 | 7662109 | NT | Homo sapiens KIAA0426 gene product (KIAA0426), mRNA |
| 6302 | 19475 | 32831 | 0.71 | 4.0E-78 | 7662109 | NT | Homo sapiens KIAA0426 gene product (KIAA0426), mRNA |
| 6703 | 19861 | 33251 | 0.74 | 4.0E-78 | 4506736 | NT | Homo sapiens ribosomal protein S6 kinase, 70kD, polypeptide 1 (RPS6KB1) mRNA |
| 7660 | 20727 | 34203 | 0.69 | 4.0E-78 | 4506736 | NT | Homo sapiens ribosomal protein S6 kinase, 70kD, polypeptide 1 (RPS6KB1) mRNA |
| 9054 | 22133 | 35677 | 1.15 | 4.0E-78 | AF012872.1 | NT | Homo sapiens phosphatidylinositol 4-kinase 230 (pi4K230) mRNA, complete cds |
| 9054 | 22133 | 35678 | 1.15 | 4.0E-78 | AF012872.1 | NT | Homo sapiens phosphatidylinositol 4-kinase 230 (pi4K230) mRNA, complete cds |
| 9568 | 22710 | 36278 | 0.61 | 4.0E-78 | 11417251 | NT | Homo sapiens X-ray repair complementing defective repair in Chinese hamster cells 4 (XRCC4), mRNA |
| 10660 | 23694 | 37303 | 1.95 | 4.0E-78 | 11560151 | NT | Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA |
| 10660 | 23694 | 37304 | 1.95 | 4.0E-78 | 11560151 | NT | Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA |
| 11705 | 24702 | 38394 | 1.84 | 4.0E-78 | AF169148.1 | NT | Homo sapiens s-CaBP1 (CABP1) mRNA, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11854 | 24842 | 38538 | 6.72 | 4.0E-78 | X05844.1 | NT | Human transforming growth factor-beta precursor gene exons 4-5 (and joined mature peptide) |
| 12855 | 25568 | 31991 | 3.93 | 4.0E-78 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 165 | 13390 | 26417 | 1.69 | 3.0E-78 | AF095901.1 | NT | Homo sapiens eRF1 gene, complete cds |
| 165 | 13390 | 26418 | 1.69 | 3.0E-78 | AF095901.1 | NT | Homo sapiens eRF1 gene, complete cds |
| 2488 | 15615 | 28736 | 1.01 | 3.0E-78 | 7706705 | NT | Homo sapiens SH3 and PX domain-containing protein SH3PX1 (SH3PX1), mRNA |
| 3860 | 17020 | | 0.81 | 3.0E-78 | AU140604.1 | EST_HUMAN | AU140604 PLACE3 Homo sapiens cDNA clone PLACE3000373 5' |
| 3918 | 17077 | 30074 | 0.78 | 3.0E-78 | 4507334 | NT | Homo sapiens synaptojanin 1 (SYNJ1), mRNA |
| 4221 | 17077 | 30074 | 0.82 | 3.0E-78 | 4507334 | NT | Homo sapiens synaptojanin 1 (SYNJ1), mRNA |
| 10493 | 23528 | | 5.44 | 3.0E-78 | BE144758.1 | EST_HUMAN | CM0-HT0180-041099-065-c07 HT0180 Homo sapiens cDNA |
| 11227 | 24296 | 37937 | 2.5 | 3.0E-78 | BE156318.1 | EST_HUMAN | QV0-HT0367-150200-114-g09 HT0367 Homo sapiens cDNA |
| 3191 | 16366 | | 2.49 | 2.0E-78 | U04489.1 | NT | Homo sapiens type IV collagen alpha 5 chain (COL4A5) gene, exon 20 |
| 4122 | 17276 | | 1.99 | 2.0E-78 | AA311872.1 | EST_HUMAN | EST182583 Jurkat T-cells VI Homo sapiens cDNA 5' end |
| 7631 | 20700 | 34177 | 1.09 | 2.0E-78 | AW402306.1 | EST_HUMAN | UI-HF-BK0-aaj-g-10-0-UI.r1 NIH_MGC_36 Homo sapiens cDNA clone IMAGE:3054139 5' |
| 7631 | 20700 | 34178 | 1.09 | 2.0E-78 | AW402306.1 | EST_HUMAN | UI-HF-BK0-aaj-g-10-0-UI.r1 NIH_MGC_36 Homo sapiens cDNA clone IMAGE:3054139 5' |
| 7908 | 20960 | 34466 | 3.36 | 2.0E-78 | BF689800.1 | EST_HUMAN | 602186529F1 NIH_MGC_49 Homo sapiens cDNA clone IMAGE:4298599 5' |
| 8230 | 21312 | 34832 | 2.49 | 2.0E-78 | AV714177.1 | EST_HUMAN | AV714177 DCB Homo sapiens cDNA clone DCBAWF09 5' |
| 8646 | 21726 | 35262 | 1.72 | 2.0E-78 | AI557509.1 | EST_HUMAN | Pt2.1_16_B07.r tumor2 Homo sapiens cDNA 3' |
| 8646 | 21726 | 35263 | 1.72 | 2.0E-78 | AI557509.1 | EST_HUMAN | Pt2.1_16_B07.r tumor2 Homo sapiens cDNA 3' |
| 11336 | 24399 | 38048 | 9.58 | 2.0E-78 | AI197637.1 | EST_HUMAN | qi50h05.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:1859961 3' similar to WP:R90.1 CE06325 PROTEIN KINASE ; |
| 11358 | 24420 | | 1.47 | 2.0E-78 | BE439409.1 | EST_HUMAN | HTM1-025F1 HTM1 Homo sapiens cDNA |
| 11386 | 24447 | 38108 | 3.01 | 2.0E-78 | N66951.1 | EST_HUMAN | za48f12.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:295823 3' |
| 5420 | 18621 | 31597 | 3.16 | 1.0E-78 | 11417304 | NT | Homo sapiens GAP-like protein (LOC51306), mRNA |
| 7094 | 18521 | 31514 | 0.82 | 1.0E-78 | AV648699.1 | EST_HUMAN | AV648699 GLC Homo sapiens cDNA clone GLCBMC01 3' |
| 8353 | 21434 | | 1.81 | 1.0E-78 | U52373.1 | NT | Human serine/threonine kinase MNB (mnb) mRNA, complete cds |
| 12324 | 25234 | 32107 | 1.83 | 1.0E-78 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 12422 | 25299 | 32086 | 2.44 | 1.0E-78 | 11435903 | NT | Homo sapiens similar to lymphocyte activation-associated protein (H. sapiens) (LOC63140), mRNA |
| 4820 | 17953 | 30938 | 4.04 | 9.0E-79 | 11525891 | NT | Homo sapiens peptide YY (PYY), mRNA |
| 4986 | 18115 | 31093 | 1.6 | 9.0E-79 | BE000837.1 | EST_HUMAN | RC2-BN0074-090300-014-c12 BN0074 Homo sapiens cDNA |
| 5549 | 18746 | 31781 | 16.98 | 9.0E-79 | AB028070.1 | NT | Homo sapiens mRNA for activator of S phase Kinase, complete cds |
| 6470 | 19637 | 32996 | 2.52 | 9.0E-79 | 5454145 | NT | Homo sapiens ubiquitin-conjugating enzyme E2E 3 (homologous to yeast UBC4/5) (UBE2E3) mRNA |
| 6752 | 19908 | 33301 | 0.98 | 9.0E-79 | 11430822 | NT | Homo sapiens hypothetical protein FLJ11294 (FLJ11294), mRNA |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7506 | 25846 | | 0.99 | 9.0E-79 | 11424427 | NT | Homo sapiens hypothetical protein FLJ20345 (FLJ20345), mRNA |
| 7748 | 20808 | 34298 | 0.63 | 9.0E-79 | 11421735 | NT | Homo sapiens cAMP response element-binding protein CRE-BPa (H_GS165L15.1), mRNA |
| 7748 | 20808 | 34299 | 0.63 | 9.0E-79 | 11421735 | NT | Homo sapiens cAMP response element-binding protein CRE-BPa (H_GS165L15.1), mRNA |
| 8541 | 21622 | 35158 | 0.52 | 9.0E-79 | 11417260 | NT | Homo sapiens threonyl-tRNA synthetase (TARS), mRNA |
| 8541 | 21622 | 35159 | 0.52 | 9.0E-79 | 11417260 | NT | Homo sapiens threonyl-tRNA synthetase (TARS), mRNA |
| 9263 | 22340 | 35890 | 4.78 | 9.0E-79 | J02853.1 | NT | Homo sapiens casein kinase II alpha subunit mRNA, complete cds |
| 9263 | 22340 | 35891 | 4.78 | 9.0E-79 | J02853.1 | NT | Homo sapiens casein kinase II alpha subunit mRNA, complete cds |
| 9580 | 22722 | 36292 | 0.66 | 9.0E-79 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 10574 | 23609 | 37214 | 0.82 | 9.0E-79 | 11438643 | NT | Homo sapiens hypothetical protein FLJ20535 (FLJ20535), mRNA |
| 10632 | 23666 | 37274 | 1.05 | 9.0E-79 | AF062346.1 | NT | Homo sapiens zinc finger protein 216 splice variant 1 (ZNF216) mRNA, complete cds |
| 10632 | 23666 | 37275 | 1.05 | 9.0E-79 | AF062346.1 | NT | Homo sapiens zinc finger protein 216 splice variant 1 (ZNF216) mRNA, complete cds |
| 11322 | 24385 | 38029 | 1.61 | 9.0E-79 | AY008273.1 | NT | Homo sapiens TRAF6-regulated IKK activator 1 beta Uev1A mRNA, complete cds |
| 11802 | 24792 | 38489 | 2.94 | 9.0E-79 | 11423827 | NT | Homo sapiens suppressor of white apricot homolog 2 (SWAP2), mRNA |
| 11802 | 24792 | 38490 | 2.94 | 9.0E-79 | 11423827 | NT | Homo sapiens suppressor of white apricot homolog 2 (SWAP2), mRNA |
| 13088 | 25711 | 31967 | 1.4 | 9.0E-79 | 11417877 | NT | Homo sapiens gamma-glutamyltransferase 1 (GGT1), mRNA |
| 3836 | 16996 | 29998 | 1.18 | 8.0E-79 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 3326 | 16498 | 29516 | 6.36 | 7.0E-79 | BE619648.1 | EST_HUMAN | 601472766T1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3875657 3' |
| 8844 | 21923 | | 0.62 | 6.0E-79 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 12169 | 25132 | | 5.44 | 6.0E-79 | AA699829.1 | EST_HUMAN | zj94e04.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:462558 3' similar to TR:Q15408 Q15408 NEUTRAL PROTEASE LARGE SUBUNIT ; |
| 11786 | 24776 | 38473 | 3.63 | 5.0E-79 | AL163282.2 | NT | Homo sapiens chromosome 21 segment HS21C082 |
| 323 | 13637 | 26569 | 1.74 | 3.0E-79 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 1001 | 14172 | 27233 | 1.22 | 3.0E-79 | AF232708.1 | NT | Homo sapiens cell-line tsA201a chloride ion current inducer protein I(Cln) gene, complete cds |
| 3168 | 16343 | 29351 | 1.74 | 3.0E-79 | U09410.1 | NT | Human zinc finger protein ZNF131 mRNA, partial cds |
| 5477 | 18676 | 31689 | 7.05 | 3.0E-79 | AF110322.1 | NT | Homo sapiens MSTP016 (MST016) mRNA, complete cds |
| 5841 | 19031 | 32337 | 1.69 | 3.0E-79 | AB020699.1 | NT | Homo sapiens mRNA for KIAA0892 protein, partial cds |
| 5866 | 19056 | 32363 | 0.93 | 3.0E-79 | BE789470.1 | EST_HUMAN | 601482143F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3884554 5' |
| 5866 | 19056 | 32364 | 0.93 | 3.0E-79 | BE789470.1 | EST_HUMAN | 601482143F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3884554 5' |
| 5889 | 19077 | 32386 | 3.87 | 3.0E-79 | 11426770 | NT | Homo sapiens netrin 1 (NTN1), mRNA |
| 5889 | 19077 | 32387 | 3.87 | 3.0E-79 | 11426770 | NT | Homo sapiens netrin 1 (NTN1), mRNA |
| 6884 | 20036 | 33445 | 0.84 | 3.0E-79 | BE256893.1 | EST_HUMAN | 601112055F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3352885 5' |
| 7206 | 20071 | 33481 | 2.58 | 3.0E-79 | AB014520.1 | NT | Homo sapiens mRNA for KIAA0620 protein, partial cds |
| 7206 | 20071 | 33482 | 2.58 | 3.0E-79 | AB014520.1 | NT | Homo sapiens mRNA for KIAA0620 protein, partial cds |
| 8012 | 21062 | 34574 | 0.87 | 3.0E-79 | 6912455 | NT | Homo sapiens guanine nucleotide exchange factor for Rap1 (KIAA0277), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8358 | 21439 | 34961 | 0.78 | 3.0E-79 | AF249273.1 | NT | Homo sapiens Bcl-2-associated transcription factor short form mRNA, complete cds |
| 9603 | 22658 | 36230 | 0.59 | 3.0E-79 | 10835036 | NT | Homo sapiens tetratricopeptide repeat domain 3 (TTC3), mRNA |
| 10555 | 23590 | | 0.62 | 3.0E-79 | AV698115.1 | EST_HUMAN | AV698115 GKC Homo sapiens cDNA clone GKCAHE11 5' |
| 298 | 13515 | | 1.4 | 2.0E-79 | H63129.1 | EST_HUMAN | yr48f03.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:208541 3' |
| 651 | 13837 | 26864 | 1.05 | 2.0E-79 | BE379926.1 | EST_HUMAN | 601159415F2 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3511107 5' |
| 951 | 14124 | 27186 | 1.14 | 2.0E-79 | 4757841 | NT | Homo sapiens BCL2-like 2 (BCL2L2) mRNA |
| 1007 | 14178 | 27239 | 4.97 | 2.0E-79 | 4885234 | NT | Homo sapiens Gardner-Rasheed feline sarcoma viral (v-fgr) oncogene homolog (FGR) mRNA |
| 1007 | 14178 | 27240 | 4.97 | 2.0E-79 | 4885234 | NT | Homo sapiens Gardner-Rasheed feline sarcoma viral (v-fgr) oncogene homolog (FGR) mRNA |
| 1060 | 14226 | | 2.15 | 2.0E-79 | AI523747.1 | EST_HUMAN | th18h07.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2118685 3' |
| 2215 | 15349 | 28478 | 6.17 | 2.0E-79 | 4585863 | NT | Homo sapiens phosphodiesterase 6A, cGMP-specific, rod, alpha (PDE6A), mRNA |
| 2216 | 15349 | 28479 | 6.17 | 2.0E-79 | 4585863 | NT | Homo sapiens phosphodiesterase 6A, cGMP-specific, rod, alpha (PDE6A), mRNA |
| 2266 | 15399 | 28527 | 1.35 | 2.0E-79 | AJ271408.1 | NT | Homo sapiens mRNA for Fas-associated factor, FAF1 (Faf1 gene) |
| 2387 | 15516 | 28648 | 1.1 | 2.0E-79 | AF244138.1 | NT | Homo sapiens hepatocellular carcinoma-associated antigen 88 (HCA88) mRNA, complete cds |
| 2780 | 15896 | 29006 | 1.2 | 2.0E-79 | AB023154.1 | NT | Homo sapiens mRNA for KIAA0937 protein, partial cds |
| 4023 | 17179 | 30188 | 0.69 | 2.0E-79 | AF170492.1 | NT | Homo sapiens chloride channel CLC4 (ClC4) mRNA, complete cds |
| 4280 | 17425 | 30414 | 1.25 | 2.0E-79 | AJ271408.1 | NT | Homo sapiens mRNA for Fas-associated factor, FAF1 (Faf1 gene) |
| 4813 | 17946 | 30931 | 0.83 | 2.0E-79 | AL163206.2 | NT | Homo sapiens chromosome 21 segment HS21C006 |
| 6788 | 18980 | | 1.06 | 2.0E-79 | AA312223.1 | EST_HUMAN | EST182926 Jurkat T-cells VI Homo sapiens cDNA 5' end similar to similar to C. elegans hypothetical protein, cosmid B0303.15 |
| 5844 | 19034 | 32340 | 0.9 | 2.0E-79 | 11161769 | NT | Homo sapiens X transporter protein 3 (XT3), mRNA |
| 6373 | 19542 | 32901 | 1.19 | 2.0E-79 | AB020637.1 | NT | Homo sapiens mRNA for KIAA0830 protein, partial cds |
| 7100 | 18527 | 31519 | 0.69 | 2.0E-79 | AF263613.1 | NT | Homo sapiens membrane-associated calcium-independent phospholipase A2 gamma mRNA, complete cds |
| 7317 | 20399 | 33861 | 2.09 | 2.0E-79 | 7382479 | NT | Homo sapiens Rho GTPase activating protein 6 (ARHGAP6), transcript variant 4, mRNA |
| 7317 | 20399 | 33862 | 2.09 | 2.0E-79 | 7382479 | NT | Homo sapiens Rho GTPase activating protein 6 (ARHGAP6), transcript variant 4, mRNA |
| 8292 | 21374 | 34894 | 1.1 | 2.0E-79 | 4506442 | NT | Homo sapiens retinoblastoma-like 1 (p107) (RBL1) mRNA |
| 8714 | 21794 | 35331 | 2.13 | 2.0E-79 | 11427428 | NT | Homo sapiens hypothetical protein FLJ11006 (FLJ11006), mRNA |
| 8965 | 22044 | 35587 | 0.55 | 2.0E-79 | 8923248 | NT | Homo sapiens hypothetical protein FLJ20275 (FLJ20275), mRNA |
| 8965 | 22044 | 35588 | 0.55 | 2.0E-79 | 8923248 | NT | Homo sapiens hypothetical protein FLJ20275 (FLJ20275), mRNA |
| 9205 | 22283 | 35823 | 0.69 | 2.0E-79 | 11432184 | NT | Homo sapiens similar to ATPase, H+ transporting, lysosomal (vacuolar proton pump) membrane sector associated protein M8-9 (H. sapiens) (LOC63961), mRNA |
| 10297 | 23332 | 36935 | 1.98 | 2.0E-79 | S72869.1 | NT | H4(D10S170)=putative cytoskeletal protein [human, thyroid, mRNA, 3011 nt] |
| 10297 | 23332 | 36936 | 1.98 | 2.0E-79 | S72869.1 | NT | H4(D10S170)=putative cytoskeletal protein [human, thyroid, mRNA, 3011 nt] |
| 11284 | 24350 | 37987 | 2.94 | 2.0E-79 | BE064386.1 | EST_HUMAN | RC4-BT0310-110300-015-f10 BT0310 Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11284 | 24350 | 37988 | 2.94 | 2.0E-79 | BE064386.1 | EST_HUMAN | RC4-BT0310-110300-015-f10 BT0310 Homo sapiens cDNA |
| 12208 | 18498 | 31534 | 4.27 | 2.0E-79 | 7662357 | NT | Homo sapiens KIAA0879 protein (KIAA0879), mRNA |
| 12298 | 25219 | 32100 | 2.3 | 2.0E-79 | AB020640.1 | NT | Homo sapiens mRNA for KIAA0833 protein, partial cds |
| 12531 | 25362 | 32067 | 3.08 | 2.0E-79 | 11418322 | NT | Homo sapiens cadherin EGF LAG seven-pass G-type receptor 1 (CELSR1), mRNA |
| 6718 | 25830 | | 3.28 | 1.0E-79 | BF363071.1 | EST_HUMAN | MR0-NN0087-260600-017-b10 NN0087 Homo sapiens cDNA |
| 6833 | 19986 | 33394 | 0.65 | 1.0E-79 | AI613480.1 | EST_HUMAN | ty37e08.x1 NCI_CGAP_Ut2 Homo sapiens cDNA clone IMAGE:2281286 3' similar to TR:Q26623 Q26623 TEKTIN C1. ; |
| 6833 | 19986 | 33395 | 0.65 | 1.0E-79 | AI613480.1 | EST_HUMAN | ty37e08.x1 NCI_CGAP_Ut2 Homo sapiens cDNA clone IMAGE:2281286 3' similar to TR:Q26623 Q26623 TEKTIN C1. ; |
| 8439 | 21520 | 35049 | 0.9 | 1.0E-79 | BE394211.1 | EST_HUMAN | 601311517F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3632909 5' |
| 11922 | 24908 | 38609 | 1.9 | 1.0E-79 | BF087405.1 | EST_HUMAN | QV2-HT0540-120900-358-e05 HT0540 Homo sapiens cDNA |
| 12326 | 26107 | | 1.44 | 1.0E-79 | AI460115.1 | EST_HUMAN | ar79a04.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2151438 3' |
| 3215 | 16389 | 29399 | 6.95 | 9.0E-80 | AA725848.1 | EST_HUMAN | al23e05.s1 Soares_testis_NHT Homo sapiens cDNA clone 1343648 3' |
| 3215 | 16389 | 29400 | 6.95 | 9.0E-80 | AA725848.1 | EST_HUMAN | al23e05.s1 Soares_testis_NHT Homo sapiens cDNA clone 1343648 3' |
| 10217 | 23253 | 36842 | 1.3 | 9.0E-80 | BE798603.1 | EST_HUMAN | 601581652F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3936081 5' |
| 11554 | 24609 | 38288 | 7.63 | 9.0E-80 | 11433924 | NT | Homo sapiens solute carrier family 7 (cationic amino acid transporter, y+ system), member 8 (SLC7A8), mRNA |
| 11554 | 24609 | 38289 | 7.63 | 9.0E-80 | 11433924 | NT | Homo sapiens solute carrier family 7 (cationic amino acid transporter, y+ system), member 8 (SLC7A8), mRNA |
| 3691 | 16853 | | 1.01 | 8.0E-80 | U94387.1 | NT | Homo sapiens Y chromosome spermatogenesis candidate protein (RBM) pseudogene mRNA, partial cds |
| 7780 | 20836 | 34328 | 2.82 | 8.0E-80 | 11422647 | NT | Homo sapiens KIAA0724 gene product (KIAA0724), mRNA |
| 7780 | 20836 | 34329 | 2.82 | 8.0E-80 | 11422647 | NT | Homo sapiens KIAA0724 gene product (KIAA0724), mRNA |
| 9602 | 22857 | 36228 | 2.2 | 8.0E-80 | 6005921 | NT | Homo sapiens triple functional domain (PTPRF interacting) (TRIO), mRNA |
| 9602 | 22657 | 36229 | 2.2 | 8.0E-80 | 6005921 | NT | Homo sapiens triple functional domain (PTPRF interacting) (TRIO), mRNA |
| 7114 | 18540 | 31497 | 0.61 | 7.0E-80 | AF127882.1 | NT | Callithrix jacchus olfactory receptor (CJA80) gene, partial cds |
| 923 | 14098 | 27162 | 0.74 | 6.0E-80 | AI422197.1 | EST_HUMAN | tf58d02.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2103459 3' similar to SW:NUEM_HUMAN Q16795 NADH-UBIQUINONE OXIDOREDUCTASE 39 KD SUBUNIT PRECURSOR ; |
| 1675 | 14827 | 27910 | 2.41 | 6.0E-80 | U64898.1 | NT | Homo sapiens NRD convertase mRNA, complete cds |
| 2372 | 16503 | 28628 | 1.14 | 6.0E-80 | 6631094 | NT | Homo sapiens minichromosome maintenance deficient (S. cerevisiae) 3 (MCM3), mRNA |
| 2372 | 15503 | 28629 | 1.14 | 6.0E-80 | 6631094 | NT | Homo sapiens minichromosome maintenance deficient (S. cerevisiae) 3 (MCM3), mRNA |
| 5922 | 19109 | 32422 | 1.46 | 6.0E-80 | 11421462 | NT | Homo sapiens malate dehydrogenase 2, NAD (mitochondrial) (MDH2), mRNA |
| 6200 | 19375 | 32726 | 3.35 | 6.0E-80 | AJ404468.1 | NT | Homo sapiens mRNA for dynein heavy chain (DNAH9 gene) |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6358 | 19528 | 32886 | 4.07 | 6.0E-80 | 11436736 | NT | Homo sapiens tubby like protein 3 (TULP3), mRNA |
| 6402 | 19571 | | 1.08 | 6.0E-80 | 7662393 | NT | Homo sapiens KIAA0941 protein (KIAA0941), mRNA |
| 6452 | 19619 | 32982 | 0.82 | 6.0E-80 | M18533.1 | NT | Homo sapiens dystrophin (DMD) mRNA, complete cds |
| 9024 | 22103 | 35643 | 3.4 | 6.0E-80 | 11526464 | NT | Homo sapiens G protein-coupled receptor 51 (GPR51), mRNA |
| 9024 | 22103 | 35644 | 3.4 | 6.0E-80 | 11526464 | NT | Homo sapiens G protein-coupled receptor 51 (GPR51), mRNA |
| 9221 | 22299 | 35842 | 1.57 | 6.0E-80 | AL163301.2 | NT | Homo sapiens chromosome 21 segment HS21C101 |
| 9559 | 22624 | 36196 | 0.65 | 6.0E-80 | AF161495.1 | NT | Homo sapiens HSPC146 mRNA, complete cds |
| 10065 | 23103 | 36706 | 1.83 | 6.0E-80 | U20211.1 | NT | Human cone photoreceptor cGMP-phosphodiesterase alpha' subunit gene, exon 21 |
| 11183 | 24252 | 37887 | 2 | 6.0E-80 | 11427366 | NT | Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 1 (BIG1), mRNA |
| 11498 | 24556 | 38231 | 20.86 | 6.0E-80 | AF226730.1 | NT | Homo sapiens Cyt19 mRNA, complete cds |
| 12053 | 25034 | 38740 | 1.48 | 6.0E-80 | AF102265.1 | NT | Homo sapiens N-acetylglucosamine-phosphate mutase mRNA, complete cds |
| 12176 | 14098 | 27162 | 1.75 | 6.0E-80 | AI422197.1 | EST_HUMAN | tf58d02.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2103459 3' similar to SW:NUEM_HUMAN Q16795 NADH-UBIQUINONE OXIDOREDUCTASE 39 KD SUBUNIT PRECURSOR ; |
| 12309 | 25972 | | 2 | 6.0E-80 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 12612 | 25351 | | 3.32 | 6.0E-80 | AB029900.1 | NT | Homo sapiens CST gene for cerebroside sulfotransferase, exon 1, 2, 3, 4, 5 |
| 13081 | 26115 | | 2.69 | 6.0E-80 | AJ133127.1 | NT | Homo sapiens mRNA for sodium-glucose cotransporter (SGLT2 gene) |
| 601 | 13790 | 26811 | 1.7 | 6.0E-80 | 4506228 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, non-ATPase, 3 (PSMD3) mRNA |
| 858 | 14035 | 27097 | 1.89 | 5.0E-80 | AF108830.1 | NT | Homo sapiens serine-threonine protein kinase (MNBH) mRNA, complete cds |
| 858 | 14035 | 27098 | 1.89 | 5.0E-80 | AF108830.1 | NT | Homo sapiens serine-threonine protein kinase (MNBH) mRNA, complete cds |
| 1216 | 14377 | | 1.49 | 5.0E-80 | X91647.1 | NT | H.sapiens nox1 gene (exon 12) |
| 1485 | 14638 | | 2.89 | 5.0E-80 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 2501 | 15628 | 28748 | 3.51 | 5.0E-80 | AB037855.1 | NT | Homo sapiens mRNA for KIAA1434 protein, partial cds |
| 2855 | 15969 | 29078 | 1.78 | 5.0E-80 | 4504292 | NT | Homo sapiens H3 histone family, member J (H3FJ) mRNA |
| 4150 | 17302 | 30295 | 0.9 | 5.0E-80 | AB019038.1 | NT | Homo sapiens HMT-1 mRNA for beta-1,4 mannosyltransferase, complete cds |
| 4150 | 17302 | 30296 | 0.9 | 5.0E-80 | AB019038.1 | NT | Homo sapiens HMT-1 mRNA for beta-1,4 mannosyltransferase, complete cds |
| 5068 | 18196 | 31170 | 1.23 | 5.0E-80 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 8552 | 21633 | 35170 | 1.28 | 5.0E-80 | 9910293 | NT | Mus musculus keratin complex 2, gene 6g (Krt2-6g), mRNA |
| 9458 | 22574 | 36140 | 5.03 | 4.0E-80 | F26915.1 | EST_HUMAN | HSPD13155 HM3 Homo sapiens cDNA clone s4000045F03 |
| 223 | 13445 | | 6.03 | 3.0E-80 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 5028 | 18157 | | 2.3 | 3.0E-80 | BE817465.1 | EST_HUMAN | QV4-BN0263-040600-241-g10 BN0263 Homo sapiens cDNA |
| 5941 | 19127 | 32440 | 1.78 | 3.0E-80 | AI091675.1 | EST_HUMAN | oo23e12.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:1567054 3' similar to TR:O35790 O35790 PIG-L. ; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1841 | 14987 | 28087 | 4.85 | 2.0E-80 | R35321.1 | EST_HUMAN | yg65a08.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:38080 5' |
| 1908 | 15051 | 28163 | 1.57 | 2.0E-80 | AI444821.1 | EST_HUMAN | RET4B7 subtracted retina cDNA library Homo sapiens cDNA clone RET4B7 |
| 2116 | 15253 | 28372 | 7.03 | 2.0E-80 | AL043116.2 | EST_HUMAN | DKFZp434D1323_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434D1323 5' |
| 6944 | 20257 | 33696 | 0.95 | 2.0E-80 | AA582952.1 | EST_HUMAN | nn80d01.s1 NCI_CGAP_Co9 Homo sapiens cDNA clone IMAGE:1090177 3' |
| 7053 | 20106 | 33522 | 1.89 | 2.0E-80 | 11421930 | NT | Homo sapiens Golgi transport complex protein (90 kDa) (GTC90), mRNA |
| 7401 | 20479 | 33947 | 0.89 | 2.0E-80 | T75215.1 | EST_HUMAN | yc86f12.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:22851 5' similar to SP:K1CR_XENLA P08802 KERATIN, TYPE I CYTOSKELETAL ENDO B ; |
| 9360 | 22435 | 35994 | 1.21 | 2.0E-80 | AW964270.1 | EST_HUMAN | EST376343 MAGE resequences, MAGH Homo sapiens cDNA |
| 9970 | 23009 | 36603 | 0.99 | 2.0E-80 | AJ007379.1 | NT | Homo sapiens GGT gene, exon 6 |
| 11109 | 24181 | 37815 | 6.84 | 2.0E-80 | AA393362.1 | EST_HUMAN | zt70f12.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:727727 5' similar to TR:G191315 G191315 ANDROGEN-DEPENDENT EXPRESSED PROTEIN. ; |
| 350 | 13561 |  | 1.62 | 1.0E-80 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 822 | 14001 | 27055 | 1.3 | 1.0E-80 | AF231920.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 2009 | 15149 |  | 2.42 | 1.0E-80 | AI732656.1 | EST_HUMAN | nn01f12.x5 NCI_CGAP_Co9 Homo sapiens cDNA clone IMAGE:1076495 3' similar to contains OFR.t1 OFR repetitive element ; |
| 4583 | 17720 | 30703 | 0.95 | 1.0E-80 | AF077188.1 | NT | Homo sapiens cullin 4A (CUL4A) mRNA, complete cds |
| 5343 | 18466 |  | 3.32 | 1.0E-80 | Y13932.1 | NT | Homo sapiens PRKY exon 7 |
| 5442 | 18642 |  | 5.25 | 1.0E-80 | BE386615.1 | EST_HUMAN | 601274305F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3615433 5' |
| 6093 | 19274 | 32603 | 6.12 | 1.0E-80 | L10347.1 | NT | Human pro-alpha1 type II collagen (COL2A1) gene exons 1-54, complete cds |
| 6627 | 19767 | 33175 | 1.17 | 1.0E-80 | 5174540 | NT | Homo sapiens malate dehydrogenase 2, NAD (mitochondrial) (MDH2), nuclear gene encoding mitochondrial protein, mRNA |
| 7356 | 20435 | 33897 | 1.18 | 1.0E-80 | AJ224172.1 | NT | Homo sapiens mRNA for lipophilin B |
| 7747 | 20807 | 34296 | 8.03 | 1.0E-80 | AI948731.1 | EST_HUMAN | wq25c05.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2472296 3' |
| 7747 | 20807 | 34297 | 8.03 | 1.0E-80 | AI948731.1 | EST_HUMAN | wq25c05.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2472296 3' |
| 8426 | 21507 | 35039 | 0.67 | 1.0E-80 | 11421211 | NT | Homo sapiens protein tyrosine phosphatase, receptor type, A (PTPRA), mRNA |
| 8897 | 21976 | 35514 | 0.76 | 1.0E-80 | 11421211 | NT | Homo sapiens protein tyrosine phosphatase, receptor type, A (PTPRA), mRNA |
| 8897 | 21976 | 35515 | 0.76 | 1.0E-80 | 11421211 | NT | Homo sapiens protein tyrosine phosphatase, receptor type, A (PTPRA), mRNA |
| 9485 | 22542 | 36104 | 1.17 | 1.0E-80 | AF245219.1 | NT | Homo sapiens probable mannose binding C-type lectin DC-SIGNR mRNA, complete cds |
| 9485 | 22542 | 36105 | 1.17 | 1.0E-80 | AF245219.1 | NT | Homo sapiens probable mannose binding C-type lectin DC-SIGNR mRNA, complete cds |
| 10640 | 23674 | 37284 | 0.7 | 1.0E-80 | D63479.2 | NT | Homo sapiens mRNA for KIAA0145 protein, partial cds |
| 10887 | 23971 | 37601 | 4.9 | 1.0E-80 | 11641276 | NT | Homo sapiens similar to rat myomegalin (LOC64182), mRNA |
| 10887 | 23971 | 37602 | 4.9 | 1.0E-80 | 11641276 | NT | Homo sapiens similar to rat myomegalin (LOC64182), mRNA |
| 12593 | 25399 | 32042 | 1.32 | 1.0E-80 | 11417901 | NT | Homo sapiens meningioma (disrupted in balanced translocation) 1 (MN1), mRNA |
| 12862 | 25573 |  | 1.28 | 1.0E-80 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10923 | 24006 | 37640 | 1.93 | 8.0E-81 | AI251752.1 | EST_HUMAN | qh90g05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1854296 3' |
| 10923 | 24006 | 37641 | 1.93 | 8.0E-81 | AI251752.1 | EST_HUMAN | qh90g05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1854296 3' |
| 11422 | 24483 | 38147 | 5.99 | 8.0E-81 | BE394525.1 | EST_HUMAN | 601310531F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3632070 5' |
| 2280 | 15412 | 28543 | 0.94 | 7.0E-81 | AA011080.1 | EST_HUMAN | ze21d10.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:359635 5' similar to SW:KRHA_RABIT Q02957 KERATIN, GLYCINE/TYROSINE-RICH OF HAIR. [1] ;contains element MER22 repetitive element ; |
| 7402 | 20480 | 33948 | 3.69 | 7.0E-81 | AI822115.1 | EST_HUMAN | za91c08.x5 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:299918 3' |
| 4506 | 17645 | 30632 | 3.73 | 6.0E-81 | BE256829.1 | EST_HUMAN | 601111970F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3352840 5' |
| 4506 | 17645 | 30633 | 3.73 | 6.0E-81 | BE256829.1 | EST_HUMAN | 601111970F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3352840 5' |
| 5397 | 18599 | 31569 | 2.28 | 6.0E-81 | 4501848 | NT | Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA |
| 5397 | 18599 | 31570 | 2.28 | 6.0E-81 | 4501848 | NT | Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA |
| 9437 | 22611 | 36076 | 1.24 | 6.0E-81 | AA360017.1 | EST_HUMAN | EST69129 Fetal lung II Homo sapiens cDNA 5' end |
| 12747 | 25495 | 32030 | 3.38 | 6.0E-81 | BF679022.1 | EST_HUMAN | 602153666F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4294601 5' |
| 12747 | 25495 | 32031 | 3.38 | 6.0E-81 | BF679022.1 | EST_HUMAN | 602153666F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4294601 5' |
| 2291 | 15423 | 28557 | 2.98 | 5.0E-81 | BE268042.1 | EST_HUMAN | 601125505F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3345480 5' |
| 8607 | 21688 | 35226 | 3.06 | 5.0E-81 | AB007923.1 | NT | Homo sapiens mRNA for KIAA0454 protein, partial cds |
| 8607 | 21688 | 35227 | 3.06 | 5.0E-81 | AB007923.1 | NT | Homo sapiens mRNA for KIAA0454 protein, partial cds |
| 9848 | 22888 | 36467 | 1.25 | 5.0E-81 | M60316.1 | NT | Human transforming growth factor-beta (tgf-beta) mRNA, complete cds |
| 9848 | 22888 | 36468 | 1.25 | 5.0E-81 | M60316.1 | NT | Human transforming growth factor-beta (tgf-beta) mRNA, complete cds |
| 11883 | 24871 | 38568 | 1.76 | 6.0E-81 | 9506634 | NT | Homo sapiens hypothetical protein (FLJ11045), mRNA |
| 720 | 13902 | 26943 | 0.64 | 4.0E-81 | AI521435.1 | EST_HUMAN | th60e12.x1 NCI_CGAP_Ov23 Homo sapiens cDNA clone IMAGE:2122702 3' similar to TR:Q85560 Q85560 ; |
| 1867 | 15013 | 28121 | 1.54 | 4.0E-81 | AW779612.1 | EST_HUMAN | hn98d02.x1 NCI_CGAP_Co14 Homo sapiens cDNA clone IMAGE:3035907 3' similar to SW:COPG_BOVIN P53620 COATOMER GAMMA SUBUNIT ; |
| 3239 | 16413 | 29428 | 3.91 | 4.0E-81 | AB037766.1 | NT | Homo sapiens mRNA for KIAA1345 protein, partial cds |
| 3718 | 16879 | 29884 | 0.89 | 4.0E-81 | AW004608.1 | EST_HUMAN | ws90h03.x1 NCI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:2505269 3' similar to TR:O43815 O43815 STRIATIN. ; |
| 4276 | 17421 | 30408 | 2.94 | 4.0E-81 | AF263306.1 | NT | Homo sapiens rab3 interacting protein variant 2 mRNA, partial cds |
| 4276 | 17421 | 30409 | 2.94 | 4.0E-81 | AF263306.1 | NT | Homo sapiens rab3 interacting protein variant 2 mRNA, partial cds |
| 7427 | 20504 | 33974 | 0.91 | 4.0E-81 | 4757893 | NT | Homo sapiens calcium channel, voltage-dependent, L type, alpha 2/delta subunit (CACNA2) mRNA |
| 7559 | 20631 | 34106 | 0.59 | 4.0E-81 | 11420544 | NT | Homo sapiens ets variant gene 1 (ETV1), mRNA |
| 8482 | 21563 | 35098 | 2.36 | 4.0E-81 | X06989.1 | NT | Human mRNA for amyloid A4(751) protein |
| 8742 | 21821 | 35355 | 2.2 | 4.0E-81 | U20197.1 | NT | Human cone photoreceptor cGMP-phosphodiesterase alpha' subunit gene, exons 2 and 3 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8742 | 21821 | 35356 | 2.2 | 4.0E-81 | U20197.1 | NT | Human cone photoreceptor cGMP-phosphodiesterase alpha' subunit gene, exons 2 and 3 |
| 9427 | 22501 | 36067 | 3.35 | 4.0E-81 | AB018001.1 | NT | Homo sapiens mRNA for Death-associated protein kinase 2, complete cds |
| 10306 | 23341 | 36946 | 1.4 | 4.0E-81 | 11425281 | NT | Homo sapiens ligase I, DNA, ATP-dependent (LIG1), mRNA |
| 10374 | 23409 | 37018 | 0.65 | 4.0E-81 | 11439065 | NT | Homo sapiens acyl-Coenzyme A dehydrogenase family, member 8 (ACAD8), mRNA |
| 10374 | 23409 | 37019 | 0.65 | 4.0E-81 | 11439065 | NT | Homo sapiens acyl-Coenzyme A dehydrogenase family, member 8 (ACAD8), mRNA |
| 11461 | 24520 | 38189 | 4.74 | 4.0E-81 | 4759085 | NT | Homo sapiens vesicle trafficking protein sec22b (SEC22B) mRNA |
| 11461 | 24520 | 38190 | 4.74 | 4.0E-81 | 4759085 | NT | Homo sapiens vesicle trafficking protein sec22b (SEC22B) mRNA |
| 12200 | 26039 | 31682 | 8.38 | 4.0E-81 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 12200 | 26039 | 31683 | 8.38 | 4.0E-81 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 12796 | 25532 | 32009 | 1.63 | 4.0E-81 | 11417871 | NT | Homo sapiens beta-ureidopropionase (LOC51733), mRNA |
| 12796 | 25532 | 32010 | 1.63 | 4.0E-81 | 11417871 | NT | Homo sapiens beta-ureidopropionase (LOC51733), mRNA |
| 12956 | 25623 | 31978 | 4.21 | 4.0E-81 | 11417974 | NT | Homo sapiens transcobalamin II; macrocytic anemia (TCN2), mRNA |
| 1296 | 14452 | 27516 | 9.06 | 3.0E-81 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 1296 | 14452 | 27517 | 9.06 | 3.0E-81 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 2444 | 15572 | 28701 | 1.72 | 3.0E-81 | AF077188.1 | NT | Homo sapiens cullin 4A (CUL4A) mRNA, complete cds |
| 3055 | 16231 | 29250 | 6.11 | 3.0E-81 | 4506280 | NT | Homo sapiens pleiotrophin (heparin binding growth factor 8, neurite growth-promoting factor 1) (PTN) mRNA |
| 3055 | 16231 | 29251 | 6.11 | 3.0E-81 | 4506280 | NT | Homo sapiens pleiotrophin (heparin binding growth factor 8, neurite growth-promoting factor 1) (PTN) mRNA |
| 2894 | 16073 | 29090 | 2.29 | 2.0E-81 | BE784636.1 | EST_HUMAN | 601474072F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3877121 5' |
| 2894 | 16073 | 29091 | 2.29 | 2.0E-81 | BE784636.1 | EST_HUMAN | 601474072F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3877121 5' |
| 3873 | 17032 | 30031 | 0.8 | 2.0E-81 | AW611542.1 | EST_HUMAN | hg85c01.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2952384 3' |
| 8144 | 21226 | 34746 | 0.69 | 2.0E-81 | 8923839 | NT | Homo sapiens hypothetical protein (LOC55586), mRNA |
| 13129 | 17032 | 30031 | 5.68 | 2.0E-81 | AW611542.1 | EST_HUMAN | hg85c01.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2952384 3' |
| 4638 | 17774 | 30754 | 2.86 | 1.0E-81 | AA040370.1 | EST_HUMAN | zk45h09.r1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:485825 5' similar to PIR:S52437 S52437 CDP-diacylglycerol synthase - fruit fly ; |
| 4768 | 17903 | 30885 | 9.54 | 1.0E-81 | BE047996.1 | EST_HUMAN | tz45c04.y1 NCI_CGAP_Brn52 Homo sapiens cDNA clone IMAGE:2291526 5' |
| 5241 | 18363 | 31331 | 0.6 | 1.0E-81 | 9966844 | NT | Homo sapiens chromosome 12 open reading frame 3 (C12ORF3), mRNA |
| 5351 | 18479 | 38821 | 6.18 | 1.0E-81 | U87928.1 | NT | Human aconitate hydratase (ACO2) gene, exon 3 |
| 5469 | 18669 | 31648 | 3.8 | 1.0E-81 | 11432966 | NT | Homo sapiens polymerase (DNA directed), gamma (POLG), mRNA |
| 5469 | 18669 | 31649 | 3.8 | 1.0E-81 | 11432966 | NT | Homo sapiens polymerase (DNA directed), gamma (POLG), mRNA |
| 5619 | 18813 | 31881 | 0.76 | 1.0E-81 | AA255569.1 | EST_HUMAN | zr85d06.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:682475 5' similar to SW:PRI2_HUMAN P49643 DNA PRIMASE 58 KD SUBUNIT ; |
| 5771 | 18963 | 32284 | 3.18 | 1.0E-81 | U52351.1 | NT | Homo sapiens arm-repeat protein NPRAP/neurojungin (CTNND2) mRNA, partial cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5771 | 18963 | 32265 | 3.18 | 1.0E-81 | U52351.1 | NT | Homo sapiens arm-repeat protein NPRAP/neurojungin (CTNND2) mRNA, partial cds |
| 6274 | 19448 | 32797 | 1.81 | 1.0E-81 | BF674641.1 | EST_HUMAN | 602137864F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4274535 5' |
| 6877 | 20029 | 33439 | 1.09 | 1.0E-81 | AJ133269.1 | NT | Homo sapiens caveolin-1/-2 locus, Contig1, D7S522, genes CAV2 (exons 1, 2a, and 2b), CAV1 (exons 1 and 2) |
| 7849 | 20999 | 34509 | 7.94 | 1.0E-81 | 11432966 | NT | Homo sapiens polymerase (DNA directed), gamma (POLG), mRNA |
| 7972 | 21022 | 34535 | 0.61 | 1.0E-81 | AJ250408.1 | NT | Homo sapiens GLI3 gene for GLI3 protein |
| 9978 | 23017 | 36610 | '0.89 | 1.0E-81 | BE958278.1 | EST_HUMAN | 601645051F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:3930228 5' |
| 9978 | 23017 | 36611 | 0.89 | 1.0E-81 | BE958278.1 | EST_HUMAN | 601645051F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:3930228 5' |
| 10174 | 23211 | 36804 | 5.13 | 1.0E-81 | BE564367.1 | EST_HUMAN | 601343180F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3685483 5' |
| 10308 | 23343 | 36948 | 0.81 | 1.0E-81 | AA630784.1 | EST_HUMAN | ao14d06.s1 Stratagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:856427 3' similar to SW:YB36_YEAST P38126 HYPOTHETICAL 60.5 KD PROTEIN IN RPS101-RPS13 INTERGENIC REGION. ; |
| 10310 | 23345 | 36950 | 3.72 | 1.0E-81 | BE744545.1 | EST_HUMAN | 601577339F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3838280 5' |
| 10310 | 23345 | 36951 | 3.72 | 1.0E-81 | BE744545.1 | EST_HUMAN | 601577339F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3838280 5' |
| 10726 | 23759 | 37367 | 1.41 | 1.0E-81 | AW897550.1 | EST_HUMAN | CM3-NN0059-140400-147-a12 NN0059 Homo sapiens cDNA |
| 10864 | 23896 | 37519 | 0.49 | 1.0E-81 | AW250322.1 | EST_HUMAN | 2822127.5prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2822127 5' |
| 11182 | 24261 | 37886 | 1.97 | 1.0E-81 | 8923698 | NT | Homo sapiens golgin-like protein (GLP), mRNA |
| 11347 | 24409 | 38061 | 1.56 | 1.0E-81 | AW844986.1 | EST_HUMAN | MR0-CT0006-250599-019 CT0006 Homo sapiens cDNA |
| 11347 | 24409 | 38062 | 1.56 | 1.0E-81 | AW844986.1 | EST_HUMAN | MR0-CT0006-250599-019 CT0006 Homo sapiens cDNA |
| 11352 | 24414 | 38068 | 2.93 | 1.0E-81 | AW798167.1 | EST_HUMAN | RC3-UM0046-290200-011-a06 UM0046 Homo sapiens cDNA |
| 11352 | 24414 | 38069 | 2.93 | 1.0E-81 | AW798167.1 | EST_HUMAN | RC3-UM0046-290200-011-a06 UM0046 Homo sapiens cDNA |
| 11550 | 18490 | 31529 | 2.46 | 1.0E-81 | AW960658.1 | EST_HUMAN | EST372729 MAGE resequences, MAGF Homo sapiens cDNA |
| 11812 | 24802 | 38501 | 1.89 | 1.0E-81 | BF204253.1 | EST_HUMAN | 601867714F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4110459 5' |
| 12417 | 25295 | 32085 | 3.6 | 1.0E-81 | 11418138 | NT | Homo sapiens phorbolin (similar to apolipoprotein B mRNA editing protein) (DJ742C19.2), mRNA |
| 13 | 13251 | 26251 | 1.59 | 8.0E-82 | AF161406.1 | NT | Homo sapiens HSPC288 mRNA, partial cds |
| 109 | 13251 | 26251 | 1.35 | 8.0E-82 | AF161406.1 | NT | Homo sapiens HSPC288 mRNA, partial cds |
| 274 | 13492 | 26523 | 1.58 | 8.0E-82 | U08988.1 | NT | Human CRFB4 gene, partial cds |
| 837 | 14015 | 27070 | 1.87 | 8.0E-82 | U08988.1 | NT | Human CRFB4 gene, partial cds |
| 910 | 14085 | 27150 | 1.84 | 8.0E-82 | U08988.1 | NT | Human CRFB4 gene, partial cds |
| 1520 | 14673 | 27755 | 2.24 | 8.0E-82 | AB037748.1 | NT | Homo sapiens mRNA for KIAA1327 protein, partial cds |
| 1690 | 14842 | 27927 | 1.39 | 8.0E-82 | 6715601 | NT | Homo sapiens glutathione peroxidase 5 (epididymal androgen-related protein) (GPX5), transcript variant 2, mRNA |
| 4198 | 17348 | 30339 | 0.74 | 8.0E-82 | 4504116 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 4358 | 17501 | 30483 | 0.83 | 8.0E-82 | 8923432 | NT | Homo sapiens hypothetical protein FLJ20461 (FLJ20461), mRNA |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1481 | 14634 | | 1.18 | 7.0E-82 | BF035327.1 | EST_HUMAN | 601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 2825 | 15939 | 29049 | 1.62 | 7.0E-82 | AU144050.1 | EST_HUMAN | AU144050 HEMBA1 Homo sapiens cDNA clone HEMBA1000752 3' |
| 1705 | 14857 | 27944 | 22.64 | 4.0E-82 | AF081484.1 | NT | Homo sapiens alpha-tubulin isoform 1 mRNA, complete cds |
| 5613 | 18807 | 31874 | 0.87 | 4.0E-82 | BF351691.1 | EST_HUMAN | QV2-HT0540-120900-362-f08 HT0540 Homo sapiens cDNA |
| 5613 | 18807 | 31875 | 0.87 | 4.0E-82 | BF351691.1 | EST_HUMAN | QV2-HT0540-120900-362-f08 HT0540 Homo sapiens cDNA |
| 5876 | 19066 | 32374 | 1.1 | 4.0E-82 | M25833.1 | NT | Human von Willebrand factor gene, exon 9 |
| 12016 | 25000 | 38702 | 4.71 | 4.0E-82 | AI937300.1 | EST_HUMAN | wp75e09.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2467624 3' similar to TR:O75276 O75276 PKD1 ; |
| 12683 | 25455 | | 3.78 | 4.0E-82 | AF029701.2 | NT | Homo sapiens presenilin-1 gene, exons 1 and 2 |
| 288 | 13506 | 26540 | 15.3 | 3.0E-82 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 721 | 13903 | 26944 | 2.6 | 3.0E-82 | BE005705.1 | EST_HUMAN | RC2-BN0120-010400-013-f02 BN0120 Homo sapiens cDNA |
| 810 | 13989 | 27043 | 8.44 | 3.0E-82 | 5174702 | NT | Homo sapiens transforming growth factor beta-activated kinase-binding protein 1 (TAB1), mRNA |
| 893 | 14069 | 27134 | 5.31 | 3.0E-82 | 4502166 | NT | *Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA* |
| 1086 | 14252 | | 15.73 | 3.0E-82 | AA725848.1 | EST_HUMAN | al23e05.s1 Soares_testis_NHT Homo sapiens cDNA clone 1343648 3' |
| 1386 | 14541 | 27617 | 1.22 | 3.0E-82 | AW875073.1 | EST_HUMAN | RC6-PT0001-190100-021-B02 PT0001 Homo sapiens cDNA |
| 1494 | 14647 | 27729 | 5.59 | 3.0E-82 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 1950 | 16093 | 28194 | 2.14 | 3.0E-82 | BE813232.1 | EST_HUMAN | RC1-BN0005-260700-018-g04 BN0005 Homo sapiens cDNA |
| 2002 | 15202 | 28318 | 1.11 | 3.0E-82 | 4501922 | NT | Homo sapiens adenylate cyclase activating polypeptide 1 (pituitary) receptor type I (ADCYAP1R1) mRNA |
| 3345 | 16518 | | 2.42 | 3.0E-82 | 5453811 | NT | Homo sapiens neurotrophic tyrosine kinase, receptor, type 2 (NTRK2) mRNA |
| 8346 | 21427 | 34952 | 2.66 | 3.0E-82 | 11425206 | NT | Homo sapiens ankyrin-like with transmembrane domains 1 (ANKTM1), mRNA |
| 8753 | 21832 | 35371 | 0.89 | 3.0E-82 | 11432889 | NT | Homo sapiens contactin 6 (CNTN6), mRNA |
| 8753 | 21832 | 35372 | 0.89 | 3.0E-82 | 11432889 | NT | Homo sapiens contactin 6 (CNTN6), mRNA |
| 10029 | 23067 | 36665 | 4.01 | 3.0E-82 | AB029000.1 | NT | Homo sapiens mRNA for KIAA1077 protein, partial cds |
| 10029 | 23067 | 36666 | 4.01 | 3.0E-82 | AB029000.1 | NT | Homo sapiens mRNA for KIAA1077 protein, partial cds |
| 610 | 13799 | 26818 | 2.49 | 2.0E-82 | AB023216.1 | NT | Homo sapiens mRNA for KIAA0999 protein, partial cds |
| 610 | 13799 | 26819 | 2.49 | 2.0E-82 | AB023216.1 | NT | Homo sapiens mRNA for KIAA0999 protein, partial cds |
| 1720 | 14870 | 27962 | 2.23 | 2.0E-82 | AL046390.1 | EST_HUMAN | DKFZp434M117_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434M117 5' |
| 3949 | 17107 | 30104 | 0.93 | 2.0E-82 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 4131 | 17284 | 30279 | 0.68 | 2.0E-82 | U76833.1 | NT | Human integral membrane serine protease Seprase mRNA, complete cds |
| 4348 | 17491 | 30473 | 0.9 | 2.0E-82 | 4504116 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 4680 | 17815 | 30803 | 1.52 | 2.0E-82 | AB029019.1 | NT | Homo sapiens mRNA for KIAA1096 protein, partial cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4680 | 17815 | 30804 | 1.62 | 2.0E-82 | AB029019.1 | NT | Homo sapiens mRNA for KIAA1096 protein, partial cds |
| 4992 | 18121 | 31100 | 2.86 | 2.0E-82 | AF045555.1 | NT | Homo sapiens wbscr1 (WBSCR1) and wbscr5 (WBSCR5) genes, complete cds, alternatively spliced and replication factor C subunit 2 (RFC2) gene, complete cds |
| 5191 | 18313 | 31280 | 1.56 | 2.0E-82 | 4507580 | NT | Homo sapiens tumor necrosis factor receptor superfamily, member 5 (TNFRSF5) mRNA |
| 5191 | 18313 | 31281 | 1.56 | 2.0E-82 | 4507580 | NT | Homo sapiens tumor necrosis factor receptor superfamily, member 5 (TNFRSF5) mRNA |
| 5587 | 18782 | 31827 | 2.89 | 2.0E-82 | AB018270.1 | NT | Homo sapiens mRNA for KIAA0727 protein, partial cds |
| 6304 | 19477 | 32832 | 4.63 | 2.0E-82 | AF234882.1 | NT | Homo sapiens FAM4A1 splice variant a (FAM4A1) mRNA, complete cds |
| 7858 | 26222 |  | 1.19 | 2.0E-82 | AI476428.1 | EST_HUMAN | tm21g05.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2157272 3' |
| 7988 | 21038 | 34560 | 0.8 | 2.0E-82 | 8923130 | NT | Homo sapiens hypothetical protein FLJ20128 (FLJ20128), mRNA |
| 8500 | 21581 | 35117 | 1.81 | 2.0E-82 | 11321570 | NT | Homo sapiens slit (Drosophila) homolog 3 (SLIT3), mRNA |
| 8869 | 21948 | 35482 | 0.58 | 2.0E-82 | 7657340 | NT | Homo sapiens microrchidia (mouse) homolog (MORC), mRNA |
| 8869 | 21948 | 35483 | 0.58 | 2.0E-82 | 7657340 | NT | Homo sapiens microrchidia (mouse) homolog (MORC), mRNA |
| 10315 | 23350 | 36956 | 1.16 | 2.0E-82 | Y08032.1 | NT | Human endogenous retrovirus-K, LTR U5 and gag gene |
| 10315 | 23350 | 36957 | 1.16 | 2.0E-82 | Y08032.1 | NT | Human endogenous retrovirus-K, LTR U5 and gag gene |
| 11547 | 24603 | 38279 | 1.74 | 2.0E-82 | 11417191 | NT | Homo sapiens leucyl/cystinyl aminopeptidase (LNPEP), mRNA |
| 11547 | 24603 | 38280 | 1.74 | 2.0E-82 | 11417191 | NT | Homo sapiens leucyl/cystinyl aminopeptidase (LNPEP), mRNA |
| 11588 | 24641 | 38322 | 2.6 | 2.0E-82 | U80736.1 | NT | Homo sapiens CAGF9 mRNA, partial cds |
| 11588 | 24641 | 38323 | 2.6 | 2.0E-82 | U80736.1 | NT | Homo sapiens CAGF9 mRNA, partial cds |
| 12230 | 26177 |  | 2.81 | 2.0E-82 | N94950.1 | EST_HUMAN | zb31d10.s1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:305203 3' |
| 12818 | 25545 |  | 3.72 | 2.0E-82 | AA011278.1 | EST_HUMAN | zi01g09.r1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:429568 5' |
| 605 | 13794 | 26813 | 1.59 | 1.0E-82 | 11545921 | NT | Homo sapiens melanoma differentiation associated protein-5 (MDA5), mRNA |
| 1235 | 14394 |  | 3.19 | 1.0E-82 | BE885106.1 | EST_HUMAN | 601510859F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912207 5' |
| 1314 | 14470 | 27536 | 1.38 | 1.0E-82 | BE064386.1 | EST_HUMAN | RC4-BT0310-110300-015-f10 BT0310 Homo sapiens cDNA |
| 1315 | 14471 | 27537 | 0.8 | 1.0E-82 | AB011110.2 | NT | Homo sapiens mRNA for KIAA0538 protein, partial cds |
| 9143 | 22222 | 35765 | 0.9 | 1.0E-82 | AB037838.1 | NT | Homo sapiens mRNA for KIAA1417 protein, partial cds |
| 9853 | 22893 | 36474 | 0.51 | 1.0E-82 | AB014562.1 | NT | Homo sapiens mRNA for KIAA0662 protein, partial cds |
| 10451 | 23486 |  | 1.4 | 1.0E-82 | BF515938.1 | EST_HUMAN | UI-H-BW1-aoa-f-03-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3084053 3' |
| 10984 | 24063 | 37698 | 2.49 | 1.0E-82 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 11258 | 24327 | 37966 | 1.49 | 1.0E-82 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 5307 | 18424 | 31394 | 1.06 | 9.0E-83 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 8912 | 21991 | 35530 | 4.99 | 9.0E-83 | BF672220.1 | EST_HUMAN | 602150403F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4291561 5' |
| 10481 | 23516 | 37128 | 0.72 | 9.0E-83 | BE253347.1 | EST_HUMAN | 601117160F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3357734 5' |
| 1446 | 14599 | 27676 | 2.97 | 8.0E-83 | BE383973.1 | EST_HUMAN | 601273346F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3614362 5' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1715 | 15992 | 27956 | 10.59 | 8.0E-83 | N66951.1 | EST_HUMAN | za48f12.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:295823 3' |
| 1388 | 14543 | 27618 | 1.2 | 7.0E-83 | AW385529.1 | EST_HUMAN | QV4-LT0016-271299-068-h11 LT0016 Homo sapiens cDNA |
| 2928 | 16105 | | 1.64 | 7.0E-83 | AA584655.1 | EST_HUMAN | no12h01.s1 NCI_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1100497 3' similar to contains Alu repetitive element; |
| 4936 | 18066 | | 6.85 | 7.0E-83 | BF221813.1 | EST_HUMAN | 7p37a07.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:3647893 3' similar to TR:Q9Y3I6 Q9Y3I6 DJ207H1.1 ; |
| 6176 | 19352 | 32699 | 0.95 | 7.0E-83 | 11426657 | NT | Homo sapiens KIAA0100 gene product (KIAA0100), mRNA |
| 416 | 13611 | 26650 | 1.39 | 6.0E-83 | M33320.1 | NT | Human platelet Glycoprotein IIb (GPIIb) gene, exons 2-29 |
| 1828 | 14976 | 28071 | 1.79 | 6.0E-83 | AW573088.1 | EST_HUMAN | hf31h03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2933525 3' similar to SW:YBEB_HAEIN P44471 HYPOTHETICAL PROTEIN HI0034. ; |
| 3082 | 16258 | 29277 | 0.68 | 6.0E-83 | AW816405.1 | EST_HUMAN | QV4-ST0234-181199-037-f05 ST0234 Homo sapiens cDNA |
| 3116 | 16292 | | 0.7 | 6.0E-83 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 3653 | 16816 | 29828 | 0.92 | 6.0E-83 | 11430241 | NT | Homo sapiens hypothetical protein FLJ10379 (FLJ10379), mRNA |
| 5408 | 18610 | 31582 | 1.73 | 6.0E-83 | 4507866 | NT | Homo sapiens VAMP (vesicle-associated membrane protein)-associated protein A (33kD) (VAPA) mRNA, and translated products |
| 6147 | 19324 | 32669 | 1.31 | 6.0E-83 | AJ010770.1 | NT | Homo sapiens hyperion gene, exons 1-50 |
| 7671 | 20737 | 34215 | 2 | 6.0E-83 | 11422024 | NT | Homo sapiens met proto-oncogene (hepatocyte growth factor receptor) (MET), mRNA |
| 9878 | 22918 | 36503 | 3.51 | 6.0E-83 | 4505314 | NT | Homo sapiens myomesin (M-protein) 2 (165kD) (MYOM2), mRNA |
| 9971 | 23010 | 36604 | 0.71 | 6.0E-83 | 11430647 | NT | Homo sapiens pre-mRNA splicing factor similar to S. cerevisiae Prp18 (PRP18), mRNA |
| 9971 | 23010 | 36605 | 0.71 | 6.0E-83 | 11430647 | NT | Homo sapiens pre-mRNA splicing factor similar to S. cerevisiae Prp18 (PRP18), mRNA |
| 11821 | 24810 | | 2.31 | 6.0E-83 | AA486105.1 | EST_HUMAN | ab14e10.s1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:840810 3' similar to contains THR.t2 THR repetitive element ; |
| 12179 | 25139 | | 4.14 | 6.0E-83 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 969 | 14142 | | 1.24 | 5.0E-83 | U17883.1 | NT | Human succinate dehydrogenase iron-protein subunit (sdhB) gene, exon 5 |
| 2108 | 15996 | | 3 | 5.0E-83 | AF006305.1 | NT | Homo sapiens 26S proteasome regulatory subunit (SUG2) mRNA, complete cds |
| 3728 | 16889 | 29893 | 0.91 | 5.0E-83 | AL133207.2 | NT | Novel human gene mapping to chomosome X |
| 4015 | 17172 | 30180 | 0.73 | 5.0E-83 | 4885190 | NT | Homo sapiens deoxyribonuclease I (DNASE1), mRNA |
| 4554 | 17692 | 30672 | 0.61 | 5.0E-83 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 5190 | 18312 | 31278 | 13.87 | 5.0E-83 | 4557013 | NT | Homo sapiens catalase (CAT) mRNA |
| 5190 | 18312 | 31279 | 13.87 | 5.0E-83 | 4557013 | NT | Homo sapiens catalase (CAT) mRNA |
| 657 | 13843 | 26870 | 1.87 | 4.0E-83 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 1022 | 14193 | | 4.09 | 3.0E-83 | AA368311.1 | EST_HUMAN | EST79542 Placenta I Homo sapiens cDNA similar to similar to endogenous retrovirus ERV9 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2837 | 15951 | | 1.6 | 3.0E-83 | AA632654.1 | EST_HUMAN | np87c07.s1 NCI_CGAP_Thy1 Homo sapiens cDNA clone IMAGE:1133292 similar to contains THR.t2 THR repetitive element ; |
| 6708 | 19866 | | 0.82 | 3.0E-83 | AI217223.1 | EST_HUMAN | qf73e06.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1755682 3' |
| 1843 | 14989 | 28089 | 1.37 | 2.0E-83 | AA993492.1 | EST_HUMAN | ot64g05.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1621592 3' similar to TR:Q92614 Q92614 MYELOBLAST KIAA0216. ; |
| 1843 | 14989 | 28090 | 1.37 | 2.0E-83 | AA993492.1 | EST_HUMAN | ot64g05.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1621592 3' similar to TR:Q92614 Q92614 MYELOBLAST KIAA0216. ; |
| 1978 | 15121 | 28222 | 9.11 | 2.0E-83 | N66951.1 | EST_HUMAN | za48f12.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:295823 3' |
| 2251 | 15384 | 28512 | 1.57 | 2.0E-83 | AB033098.1 | NT | Homo sapiens mRNA for KIAA1272 protein, partial cds |
| 2913 | 16091 | 29103 | 1.33 | 2.0E-83 | BE828694.1 | EST_HUMAN | RC6-ET0046-280600-013-H12 ET0046 Homo sapiens cDNA |
| 3342 | 16515 | | 2.16 | 2.0E-83 | 11430834 | NT | Homo sapiens sal (Drosophila)-like 1 (SALL1), mRNA |
| 3874 | 17033 | | 0.94 | 2.0E-83 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 4456 | 17596 | 30576 | 4.95 | 2.0E-83 | AF202879.1 | NT | Homo sapiens hematopoietic progenitor cell antigen CD34 precursor (CD34) mRNA, partial cds |
| 4775 | 17910 | 30893 | 3.19 | 2.0E-83 | 7706398 | NT | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |
| 4775 | 17910 | 30894 | 3.19 | 2.0E-83 | 7706398 | NT | Homo sapiens ankyrin repeat-containing protein ASB-2 (LOC51676), mRNA |
| 6385 | 18587 | 31559 | 0.91 | 2.0E-83 | U06679.1 | NT | Human carcinoembryonic antigen gene family member 18 (CGM18) gene, exons A1 and B1 |
| 5967 | 19163 | 32468 | 0.67 | 2.0E-83 | 11428081 | NT | Homo sapiens membrane protein CH1 (CH1), mRNA |
| 6086 | 19268 | 32597 | 1.2 | 2.0E-83 | BE885401.1 | EST_HUMAN | 601507482F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3909068 5' |
| 6885 | 20037 | 33446 | 0.72 | 2.0E-83 | AF129533.1 | NT | Homo sapiens F-box protein Fbl3b (FBL3B) mRNA, partial cds |
| 7593 | 20664 | 34140 | 5.15 | 2.0E-83 | AF129533.1 | NT | Homo sapiens F-box protein Fbl3b (FBL3B) mRNA, partial cds |
| 7987 | 21036 | 34548 | 0.58 | 2.0E-83 | BF105097.1 | EST_HUMAN | 601822090F1 NIH_MGC_75 Homo sapiens cDNA clone IMAGE:4042318 5' |
| 8026 | 21109 | 34626 | 0.63 | 2.0E-83 | AB001025.1 | NT | Homo sapiens mRNA for brain ryanodine receptor, complete cds |
| 8026 | 21109 | 34627 | 0.63 | 2.0E-83 | AB001025.1 | NT | Homo sapiens mRNA for brain ryanodine receptor, complete cds |
| 8175 | 21257 | 34779 | 1.46 | 2.0E-83 | U66707.1 | NT | Rattus norvegicus densin-180 mRNA, complete cds |
| 8509 | 21590 | 35124 | 2.52 | 2.0E-83 | AF011920.1 | NT | Homo sapiens protein kinase CK2 catalytic subunit alpha gene, exon 1 |
| 8509 | 21590 | 35125 | 2.52 | 2.0E-83 | AF011920.1 | NT | Homo sapiens protein kinase CK2 catalytic subunit alpha gene, exon 1 |
| 9793 | 22833 | 36412 | 0.54 | 2.0E-83 | 5453881 | NT | Homo sapiens phosphorylase kinase, gamma 1 (muscle) (PHKG1) mRNA |
| 9793 | 22833 | 36413 | 0.54 | 2.0E-83 | 5453881 | NT | Homo sapiens phosphorylase kinase, gamma 1 (muscle) (PHKG1) mRNA |
| 10240 | 23275 | 36866 | 3.2 | 2.0E-83 | M22094.1 | NT | Human neural cell adhesion molecule (N-CAM) secreted isoform mRNA, 3' end |
| 10240 | 23275 | 36867 | 3.2 | 2.0E-83 | M22094.1 | NT | Human neural cell adhesion molecule (N-CAM) secreted isoform mRNA, 3' end |
| 10322 | 23357 | 36967 | 1.35 | 2.0E-83 | AU117659.1 | EST_HUMAN | AU117659 HEMBA1 Homo sapiens cDNA clone HEMBA1001910 5' |
| 10392 | 23427 | 37034 | 0.78 | 2.0E-83 | AW505600.1 | EST_HUMAN | UI-HF-BN0-amd-h-07-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3081852 5' |
| 11086 | 24160 | 37796 | 3.24 | 2.0E-83 | 11436448 | NT | Homo sapiens KIAA0985 protein (KIAA0985), mRNA |
| 11168 | 24239 | 37870 | 1.64 | 2.0E-83 | AL134452.1 | EST_HUMAN | DKFZp547J135_r1 547 (synonym: hfbr1) Homo sapiens cDNA clone DKFZp547J135 5' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11168 | 24239 | 37871 | 1.64 | 2.0E-83 | AL134452.1 | EST_HUMAN | DKFZp547J135_r1 547 (synonym: hfbr1) Homo sapiens cDNA clone DKFZp547J135 5' |
| 12859 | 25570 | | 3.26 | 2.0E-83 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 1444 | 14597 | 27673 | 2.26 | 1.0E-83 | 4504326 | NT | Homo sapiens hydroxyacyl-Coenzyme A dehydrogenase/3-ketoacyl-Coenzyme A thiolase/enoyl-Coenzyme A hydratase (trifunctional protein), beta subunit (HADHB) mRNA |
| 1444 | 14597 | 27674 | 2.26 | 1.0E-83 | 4504326 | NT | Homo sapiens hydroxyacyl-Coenzyme A dehydrogenase/3-ketoacyl-Coenzyme A thiolase/enoyl-Coenzyme A hydratase (trifunctional protein), beta subunit (HADHB) mRNA |
| 2076 | 15216 | 28335 | 1.15 | 1.0E-83 | 4503652 | NT | Homo sapiens fatty-acid-Coenzyme A ligase, very long-chain 1 (FACVL1) mRNA |
| 2722 | 15840 | 28951 | 1.21 | 1.0E-83 | BE883690.1 | EST_HUMAN | 601507375F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3908754 5' |
| 3251 | 16425 | 29443 | 0.72 | 1.0E-83 | 7662349 | NT | Homo sapiens cell recognition molecule Caspr2 (KIAA0868), mRNA |
| 3972 | 17129 | 30132 | 7.76 | 1.0E-83 | AF053768.1 | NT | Rattus norvegicus brain specific cortactin-binding protein CBP90 mRNA, partial cds |
| 4359 | 17502 | 30484 | 2.22 | 1.0E-83 | Z25822.1 | NT | H.sapiens gene for mitochondrial dodecenoyl-CoA delta-isomerase, exon 3 |
| 5008 | 18137 | 31111 | 2.74 | 1.0E-83 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 6835 | 19988 | 33397 | 1.59 | 1.0E-83 | AI027614.1 | EST_HUMAN | ov99b08.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1645431 3' similar to gb:M64241 QM PROTEIN (HUMAN); |
| 3897 | 17056 | 30056 | 3.62 | 7.0E-84 | BE901209.1 | EST_HUMAN | 601676023F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3958863 5' |
| 1323 | 14479 | 27544 | 2.96 | 6.0E-84 | BE838864.1 | EST_HUMAN | RC2-FN0119-200600-011-g05 FN0119 Homo sapiens cDNA |
| 1323 | 14479 | 27545 | 2.96 | 6.0E-84 | BE838864.1 | EST_HUMAN | RC2-FN0119-200600-011-g05 FN0119 Homo sapiens cDNA |
| 2471 | 15598 | 28723 | 17.98 | 6.0E-84 | AA776574.1 | EST_HUMAN | ae86a03.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:971020 3' |
| 5354 | 18481 | | 2.18 | 6.0E-84 | AL042863.2 | EST_HUMAN | DKFZp434H0322_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434H0322 5' |
| 5635 | 18829 | 31905 | 1.91 | 6.0E-84 | AA897339.1 | EST_HUMAN | al47g03.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1460500 3' similar to gb:M14338 VITAMIN K-DEPENDENT PROTEIN S PRECURSOR (HUMAN); |
| 5777 | 18969 | 32273 | 0.99 | 6.0E-84 | 11426718 | NT | Homo sapiens acetyl LDL receptor; SREC=scavenger receptor expressed by endothelial cells (SREC), mRNA |
| 5777 | 18969 | 32274 | 0.99 | 6.0E-84 | 11426718 | NT | Homo sapiens acetyl LDL receptor; SREC=scavenger receptor expressed by endothelial cells (SREC), mRNA |
| 7642 | 20711 | 34190 | 3.14 | 6.0E-84 | BE810371.1 | EST_HUMAN | PM0-LT0019-190600-004-F02 LT0019 Homo sapiens cDNA |
| 7868 | 20922 | 34429 | 1.05 | 6.0E-84 | AF038391.1 | NT | Homo sapiens pre-mRNA splicing factor (PRP16) mRNA, complete cds |
| 8264 | 21346 | 34861 | 2 | 6.0E-84 | BE770199.1 | EST_HUMAN | PM4-FT0054-160600-004-e10 FT0054 Homo sapiens cDNA |
| 732 | 13914 | 26955 | 1.32 | 5.0E-84 | AA382811.1 | EST_HUMAN | EST96094 Testis I Homo sapiens cDNA 5' end |
| 3079 | 16255 | | 1.91 | 5.0E-84 | AF109718.1 | NT | Homo sapiens chromosome 3 subtelomeric region |
| 6232 | 19407 | 32756 | 0.62 | 5.0E-84 | AA167678.1 | EST_HUMAN | zq39e07.r1 Stratagene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:632100 5' similar to TR:G483915 G483915 RETROTRANSPOSABLE L1 ELEMENT LRE2 FROM CHROMOSOME 1Q. ; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11838 | 24827 | 38516 | 2.85 | 5.0E-84 | 11428740 | NT | Homo sapiens regulatory factor X, 3 (influences HLA class II expression) (RFX3), mRNA |
| 11952 | 24938 | 38640 | 1.99 | 5.0E-84 | AB032957.1 | NT | Homo sapiens mRNA for KIAA1131 protein, partial cds |
| 11952 | 24938 | 38641 | 1.99 | 5.0E-84 | AB032957.1 | NT | Homo sapiens mRNA for KIAA1131 protein, partial cds |
| 1407 | 14561 | 27635 | 1.34 | 4.0E-84 | AB037735.1 | NT | Homo sapiens mRNA for KIAA1314 protein, partial cds |
| 1443 | 14596 | 27672 | 4.47 | 4.0E-84 | AI685321.1 | EST_HUMAN | wa76c04.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2302086 3' similar to SW:NRDC_HUMAN O43847 NARDILYSIN PRECURSOR ; |
| 5064 | 18192 | 31167 | 0.66 | 4.0E-84 | 4505928 | NT | Homo sapiens polymerase (DNA-directed), alpha (70kD) (POLA2), mRNA |
| 5065 | 18193 | 31168 | 1.52 | 4.0E-84 | AF069601.2 | NT | Homo sapiens myosin light chain kinase isoform 2 (MLCK) mRNA, complete cds |
| 5377 | 18579 | 31448 | 1.62 | 4.0E-84 | AF022835.1 | NT | Homo sapiens multidrug resistance protein (MRP), exon 13 |
| 5680 | 18874 | 32162 | 1.8 | 4.0E-84 | 11386168 | NT | Homo sapiens protein tyrosine phosphatase, receptor type, G (PTPRG), mRNA |
| 5680 | 18874 | 32163 | 1.8 | 4.0E-84 | 11386168 | NT | Homo sapiens protein tyrosine phosphatase, receptor type, G (PTPRG), mRNA |
| 6398 | 19567 | 32928 | 2.14 | 4.0E-84 | AF059650.1 | NT | Homo sapiens histone deacetylase 3 (HDAC3) gene, complete cds |
| 7825 | 20880 | 34381 | 13.68 | 4.0E-84 | 11421326 | NT | Homo sapiens KIAA0783 gene product (KIAA0783), mRNA |
| 9112 | 22191 | 35735 | 1.12 | 4.0E-84 | 4557526 | NT | Homo sapiens discs, large (Drosophila) homolog 2 (chapsyn-110) (DLG2) mRNA |
| 9112 | 22191 | 35736 | 1.12 | 4.0E-84 | 4557526 | NT | Homo sapiens discs, large (Drosophila) homolog 2 (chapsyn-110) (DLG2) mRNA |
| 11158 | 24229 | 37859 | 4.76 | 4.0E-84 | AB032956.1 | NT | Homo sapiens mRNA for KIAA1130 protein, partial cds |
| 326 | 13640 | 26572 | 2.16 | 3.0E-84 | AF026200.1 | NT | Homo sapiens Bach1 protein homolog mRNA, partial cds |
| 1178 | 14341 | 27395 | 1.53 | 3.0E-84 | 4758081 | NT | Homo sapiens chondroitin sulfate proteoglycan 2 (versican) (CSPG2) mRNA |
| 2015 | 15155 | 28260 | 2.39 | 3.0E-84 | 5453855 | NT | Homo sapiens pericentriolar material 1 (PCM1) mRNA |
| 2063 | 15203 | 28319 | 2.36 | 3.0E-84 | AL096880.1 | NT | Novel human mRNA containing Zinc finger C2H2 type domains |
| 3843 | 17002 | 30005 | 5.53 | 3.0E-84 | AF014459.1 | NT | Homo sapiens X-linked juvenile retinoschisis precursor protein (XLRS1) mRNA, complete cds |
| 11118 | 24190 |  | 5.78 | 3.0E-84 | AI983801.1 | EST_HUMAN | wu20d05.x1 Soares_Dieckgraefe_colon_NHCD Homo sapiens cDNA clone IMAGE:2520585 3' similar to gb:L05093 60S RIBOSOMAL PROTEIN L18A (HUMAN); |
| 2172 | 15307 | 28435 | 6.46 | 2.0E-84 | BE695397.1 | EST_HUMAN | CM1-BT0795-190600-272-b08 BT0795 Homo sapiens cDNA |
| 2172 | 15307 | 28436 | 6.46 | 2.0E-84 | BE695397.1 | EST_HUMAN | CM1-BT0795-190600-272-b08 BT0795 Homo sapiens cDNA |
| 3009 | 16185 | 29209 | 9.21 | 2.0E-84 | AF036943.1 | NT | Homo sapiens myelin transcription factor 1-like (MYT1-l) mRNA, complete cds |
| 3027 | 16203 | 29226 | 1.22 | 2.0E-84 | X89211.1 | NT | H.sapiens DNA for endogenous retroviral like element |
| 5643 | 18837 | 31914 | 0.93 | 2.0E-84 | BF511575.1 | EST_HUMAN | UI-H-BI4-aol-a-02-0-UI.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3084963 3' |
| 5643 | 18837 | 31915 | 0.93 | 2.0E-84 | BF511575.1 | EST_HUMAN | UI-H-BI4-aol-a-02-0-UI.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3084963 3' |
| 6774 | 19929 | 33325 | 0.92 | 2.0E-84 | H63370.1 | EST_HUMAN | yr56e11.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:209324 3' |
| 8247 | 21329 |  | 1.55 | 2.0E-84 | AI298674.1 | EST_HUMAN | qm87c09.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1895728 3' |
| 8579 | 21660 | 35200 | 0.58 | 2.0E-84 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 8579 | 21660 | 35201 | 0.58 | 2.0E-84 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 9546 | 22611 | 36179 | 1.24 | 2.0E-84 | AU120280.1 | EST_HUMAN | AU120280 HEMBB1 Homo sapiens cDNA clone HEMBB1000339 5' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9933 | 22972 | 36564 | 0.64 | 2.0E-84 | H22841.1 | EST_HUMAN | ym49e11.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:51383 5' similar to SP:APOH_RAT P26644 BETA-2-GLYCOPROTEIN I ; |
| 12449 | 25316 | 32092 | 1.81 | 2.0E-84 | BF448000.1 | EST_HUMAN | nae30a02.x1 Lupski_sympathetic_trunk Homo sapiens cDNA clone IMAGE:4090251 3' similar to TR:Q9UGS3 Q9UGS3 DJ756G23.1 ; |
| 12449 | 25316 | 32093 | 1.81 | 2.0E-84 | BF448000.1 | EST_HUMAN | nae30a02.x1 Lupski_sympathetic_trunk Homo sapiens cDNA clone IMAGE:4090251 3' similar to TR:Q9UGS3 Q9UGS3 DJ756G23.1 ; |
| 322 | 13636 | 26568 | 1.5 | 1.0E-84 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 663 | 13755 | 26781 | 10.87 | 1.0E-84 | 4507952 | NT | Homo sapiens tyrosine 3-monooxygenase/tryptophan 5-monooxygenase activation protein, zeta polypeptide (YWHAZ) mRNA |
| 738 | 13920 | | 1.19 | 1.0E-84 | 11427631 | NT | Homo sapiens complement component 5 (C5), mRNA |
| 1321 | 14477 | 27542 | 2.63 | 1.0E-84 | AA984379.1 | EST_HUMAN | am85b11.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:1629885 3' |
| 2114 | 15252 | 28371 | 3.11 | 1.0E-84 | BE392137.1 | EST_HUMAN | 601308006F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3626257 5' |
| 2298 | 15430 | 28562 | 1.53 | 1.0E-84 | 11427197 | NT | Homo sapiens pericentriolar material 1 (PCM1), mRNA |
| 3845 | 17005 | 30007 | 2.78 | 1.0E-84 | AA720851.1 | EST_HUMAN | nw12e06.s1 NCI_CGAP_SS1 Homo sapiens cDNA clone IMAGE:1239106 3' |
| 4538 | 17676 | 30659 | 5.89 | 1.0E-84 | AJ229041.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3 |
| 4821 | 17954 | 30939 | 3.03 | 1.0E-84 | AL043314.2 | EST_HUMAN | DKFZp434N0323_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N0323 5' |
| 4821 | 17954 | 30940 | 3.03 | 1.0E-84 | AL043314.2 | EST_HUMAN | DKFZp434N0323_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N0323 5' |
| 5031 | 17676 | 30659 | 3.56 | 1.0E-84 | AJ229041.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3 |
| 6043 | 19226 | 32549 | 0.88 | 1.0E-84 | 11434422 | NT | Homo sapiens speckle-type POZ protein (SPOP), mRNA |
| 6319 | 19491 | 32849 | 2.84 | 1.0E-84 | S73482.1 | NT | uterine water channel=28 kda erythrocyte integral membrane protein homolog [human, uterus, mRNA, 1340 nt] |
| 7020 | 20156 | 33576 | 1.42 | 1.0E-84 | AL049784.1 | NT | Novel human gene mapping to chomosome 13 |
| 7020 | 20156 | 33577 | 1.42 | 1.0E-84 | AL049784.1 | NT | Novel human gene mapping to chomosome 13 |
| 7256 | 20339 | 33789 | 2.53 | 1.0E-84 | AL049784.1 | NT | Novel human gene mapping to chomosome 13 |
| 7637 | 20706 | 34185 | 10.45 | 1.0E-84 | 8393994 | NT | Homo sapiens polymerase (DNA directed), alpha (POLA), mRNA |
| 7737 | 20798 | 34287 | 1.07 | 1.0E-84 | 11430846 | NT | Homo sapiens NGFI-A binding protein 1 (ERG1 binding protein 1) (NAB1), mRNA |
| 7777 | 20798 | 34287 | 2.34 | 1.0E-84 | 11430846 | NT | Homo sapiens NGFI-A binding protein 1 (ERG1 binding protein 1) (NAB1), mRNA |
| 9736 | 22800 | | 2.79 | 1.0E-84 | 5031984 | NT | Homo sapiens nuclear transport factor 2 (placental protein 15) (PP15) mRNA |
| 9972 | 23011 | 36606 | 0.6 | 1.0E-84 | AF224511.1 | NT | Homo sapiens Ca2+-binding protein CABP3 (CABP3) gene, exon 6 and partial cds |
| 9994 | 18488 | 31527 | 1.6 | 1.0E-84 | 4507848 | NT | Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA |
| 9994 | 18488 | 31528 | 1.6 | 1.0E-84 | 4507848 | NT | Homo sapiens ubiquitin specific protease 13 (isopeptidase T-3) (USP13) mRNA |
| 12325 | 25236 | | 2.62 | 1.0E-84 | 11417812 | NT | Homo sapiens purinergic receptor P2X-like 1, orphan receptor (P2RXL1), mRNA |
| 12438 | 25311 | 32088 | 3.77 | 1.0E-84 | 11418185 | NT | Homo sapiens aconitase 2, mitochondrial (ACO2), mRNA |
| 989 | 14161 | | 1.94 | 9.0E-85 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1098 | 14263 | 27319 | 2.89 | 9.0E-85 | U51432.1 | NT | Homo sapiens nuclear protein Skip mRNA, complete cds |
| 1098 | 14263 | 27320 | 2.89 | 9.0E-85 | U51432.1 | NT | Homo sapiens nuclear protein Skip mRNA, complete cds |
| 1609 | 14762 | 27841 | 1.12 | 9.0E-85 | M33282.1 | NT | Human plasminogen gene, exon 7 |
| 1609 | 14762 | 27842 | 1.12 | 9.0E-85 | M33282.1 | NT | Human plasminogen gene, exon 7 |
| 1709 | 14860 | 27949 | 3.59 | 9.0E-85 | 7657020 | NT | Homo sapiens DKFZp434P211 protein (DKFZP434P211), mRNA |
| 3870 | 17029 |  | 0.8 | 9.0E-85 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 4366 | 17509 | 30490 | 0.92 | 9.0E-85 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 5001 | 18130 | 31105 | 0.99 | 9.0E-85 | 5901979 | NT | Homo sapiens heat shock transcription factor 2 binding protein (HSF2BP), mRNA |
| 5032 | 18160 | 31137 | 1.16 | 9.0E-85 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 13046 | 14860 | 27949 | 1.78 | 9.0E-85 | 7657020 | NT | Homo sapiens DKFZp434P211 protein (DKFZP434P211), mRNA |
| 1159 | 14323 | 27378 | 4.64 | 7.0E-85 | L05094.1 | NT | Homo sapiens ribosomal protein L27 mRNA, complete cds |
| 11943 | 24929 |  | 5.61 | 7.0E-85 | AF113210.1 | NT | Homo sapiens MSTP030 mRNA, complete cds |
| 11702 | 24699 | 38391 | 2.56 | 6.0E-85 | 11438573 | NT | Homo sapiens DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 10 (RNA helicase) (DDX10), mRNA |
| 11702 | 24699 | 38392 | 2.56 | 6.0E-85 | 11438573 | NT | Homo sapiens DEAD/H (Asp-Glu-Ala-Asp/His) box polypeptide 10 (RNA helicase) (DDX10), mRNA |
| 12060 | 25041 | 38750 | 2 | 6.0E-85 | AA403053.1 | EST_HUMAN | zt62b01.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:726889 5' similar to TR:G1335769 G1335769 GAG-POL POLYPROTEIN. ; |
| 2410 | 15540 | 28668 | 4.09 | 5.0E-85 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 4552 | 17690 |  | 0.71 | 5.0E-85 | AF211189.1 | NT | Homo sapiens T-type calcium channel alpha1 subunit Alpha1I-a isoform (CACNA1I) mRNA, complete cds |
| 5567 | 18764 | 31804 | 1.59 | 5.0E-85 | BF035674.1 | EST_HUMAN | 601458646F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862402 5' |
| 5567 | 18764 | 31805 | 1.59 | 5.0E-85 | BF035674.1 | EST_HUMAN | 601458646F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862402 5' |
| 11381 | 24442 | 38101 | 2.31 | 5.0E-85 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 13127 | 17690 |  | 1.72 | 5.0E-85 | AF211189.1 | NT | Homo sapiens T-type calcium channel alpha1 subunit Alpha1I-a isoform (CACNA1I) mRNA, complete cds |
| 6276 | 19450 | 32798 | 1.39 | 4.0E-85 | BF677910.1 | EST_HUMAN | 602084730F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4249087 5' |
| 6276 | 19450 | 32799 | 1.39 | 4.0E-85 | BF677910.1 | EST_HUMAN | 602084730F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4249087 5' |
| 8021 | 21074 | 34686 | 3.43 | 4.0E-85 | BE882304.1 | EST_HUMAN | 601505022F2 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3906940 5' |
| 10798 | 23831 |  | 1.8 | 4.0E-85 | BE079263.1 | EST_HUMAN | RC1-BT0623-120200-011-c07 BT0623 Homo sapiens cDNA |
| 1327 | 14484 | 27551 | 0.91 | 3.0E-85 | AF098157.1 | NT | Homo sapiens protein phosphatase 2A BR gamma subunit gene, exon 6 |
| 1821 | 14970 | 28062 | 4.8 | 3.0E-85 | T97495.1 | EST_HUMAN | ye53g09.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:121504 5' |
| 5019 | 18148 | 31125 | 1.03 | 3.0E-85 | 11024695 | NT | Homo sapiens F-box only protein 24 (FBXO24), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5019 | 18148 | 31126 | 1.03 | 3.0E-85 | 11024695 | NT | Homo sapiens F-box only protein 24 (FBXO24), mRNA |
| 5080 | 18208 | 31180 | 0.91 | 3.0E-85 | 7363442 | NT | Homo sapiens olfactory receptor, family 12, subfamily D, member 2 (OR12D2), mRNA |
| 5517 | 18715 | 31729 | 6.35 | 3.0E-85 | 11436001 | NT | Homo sapiens lacrimal proline rich protein (LPRP), mRNA |
| 6210 | 19385 | 32734 | 0.72 | 3.0E-85 | 11422024 | NT | Homo sapiens met proto-oncogene (hepatocyte growth factor receptor) (MET), mRNA |
| 6262 | 19436 | 32782 | 4.92 | 3.0E-85 | 7662309 | NT | Homo sapiens KIAA0793 gene product (KIAA0793), mRNA |
| 6262 | 19436 | 32783 | 4.92 | 3.0E-85 | 7662309 | NT | Homo sapiens KIAA0793 gene product (KIAA0793), mRNA |
| 7091 | 20185 |  | 7.95 | 3.0E-85 | AJ404468.1 | NT | Homo sapiens mRNA for dynein heavy chain (DNAH9 gene) |
| 7555 | 20627 | 34103 | 0.84 | 3.0E-85 | 11416870 | NT | Homo sapiens GTPase regulator associated with the focal adhesion kinase pp125(FAK); KIAA0621 protein (KIAA0621), mRNA |
| 8056 | 21139 | 34659 | 1.44 | 3.0E-85 | U44953.1 | NT | Homo sapiens DENN mRNA, complete cds |
| 8706 | 21786 | 35319 | 0.48 | 3.0E-85 | 11525829 | NT | Homo sapiens CGI-81 protein (LOC51108), mRNA |
| 9178 | 22256 | 35798 | 4.39 | 3.0E-85 | 11430889 | NT | Homo sapiens phospholipase C, epsilon (PLCE), mRNA |
| 9506 | 22772 | 36343 | 0.84 | 3.0E-85 | 11421422 | NT | Homo sapiens small nuclear ribonucleoprotein polypeptide B" (SNRPB2), mRNA |
| 9506 | 22772 | 36344 | 0.84 | 3.0E-85 | 11421422 | NT | Homo sapiens small nuclear ribonucleoprotein polypeptide B" (SNRPB2), mRNA |
| 10700 | 23733 | 37338 | 0.72 | 3.0E-85 | AF098642.1 | NT | Homo sapiens phospholipid scramblase mRNA, complete cds |
| 11796 | 24786 | 38484 | 1.48 | 3.0E-85 | 5031660 | NT | Homo sapiens EGF-like repeats and discoidin I-like domains 3 (EDIL3), mRNA |
| 12999 | 25648 |  | 3.02 | 3.0E-85 | 11418177 | NT | Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA |
| 985 | 14157 | 27218 | 0.62 | 2.0E-85 | 7657266 | NT | Homo sapiens KIAA0929 protein Msx2 interacting nuclear target (MINT) homolog (KIAA0929), mRNA |
| 1065 | 14231 | 27289 | 2.35 | 2.0E-85 | AF248540.1 | NT | Homo sapiens intersectin 2 (SH3D1B) mRNA, complete cds |
| 1436 | 14589 | 27662 | 1.19 | 2.0E-85 | 7706205 | NT | Homo sapiens CGI-201 protein (LOC51340), mRNA |
| 1451 | 14604 | 27682 | 13.02 | 2.0E-85 | 5174775 | NT | Homo sapiens apolipoprotein C-II (APOC2) mRNA |
| 1451 | 14604 | 27683 | 13.02 | 2.0E-85 | 5174775 | NT | Homo sapiens apolipoprotein C-II (APOC2) mRNA |
| 2304 | 15436 | 28568 | 2.92 | 2.0E-85 | U10525.1 | NT | Human DNA polymerase beta gene, exons 12 and 13 |
| 2884 | 14523 |  | 4.22 | 2.0E-85 | 7657468 | NT | Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA |
| 3087 | 16263 | 29280 | 3.57 | 2.0E-85 | M30938.1 | NT | Human Ku (p70/p80) subunit mRNA, complete cds |
| 4454 | 17594 | 30574 | 4.66 | 2.0E-85 | 4505880 | NT | Homo sapiens plasminogen (PLG) mRNA |
| 4687 | 17822 | 30810 | 0.74 | 2.0E-85 | 4826977 | NT | Homo sapiens reelin (RELN) mRNA |
| 5030 | 18159 | 31136 | 1.21 | 2.0E-85 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 9473 | 22530 | 36094 | 1.78 | 2.0E-85 | AI760820.1 | EST_HUMAN | wi67h08.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2398431 3' similar to contains element MSR1 repetitive element ; |
| 9849 | 22889 | 36469 | 0.82 | 2.0E-85 | AI914459.1 | EST_HUMAN | wd49d03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2331461 3' |
| 10469 | 23504 | 37118 | 0.94 | 2.0E-85 | AI886384.1 | EST_HUMAN | wm94d12.x1 NCI_CGAP_Ut2 Homo sapiens cDNA clone IMAGE:2443607 3' |
| 2360 | 15491 |  | 3.55 | 1.0E-85 | BE794308.1 | EST_HUMAN | 601591416F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3945818 5' |

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Table 4
Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2467 | 15594 | 28719 | 9.36 | 1.0E-85 | BE618392.1 | EST_HUMAN | 601462817F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3866021 5' |
| 2467 | 15594 | 28720 | 9.36 | 1.0E-85 | BE618392.1 | EST_HUMAN | 601462817F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3866021 5' |
| 7983 | 21032 | 34545 | 0.61 | 1.0E-85 | BE062951.1 | EST_HUMAN | MR0-BT0264-221199-002-f03 BT0264 Homo sapiens cDNA |
| 9984 | 23023 | 36615 | 2.13 | 1.0E-85 | BE257917.1 | EST_HUMAN | 601109738F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350563 5' |
| 10416 | 23450 | 37055 | 0.76 | 1.0E-85 | AW813525.1 | EST_HUMAN | RC1-ST0196-081099-011-d05 ST0196 Homo sapiens cDNA |
| 11164 | 24235 | 37865 | 2.79 | 1.0E-85 | AA778785.1 | EST_HUMAN | zj45f03.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:453245 3' |
| 11164 | 24235 | 37866 | 2.79 | 1.0E-85 | AA778785.1 | EST_HUMAN | zj45f03.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:453245 3' |
| 11245 | 24314 | 37953 | 1.86 | 1.0E-85 | BF311562.1 | EST_HUMAN | 601897003F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4126440 5' |
| 11245 | 24314 | 37954 | 1.86 | 1.0E-85 | BF311562.1 | EST_HUMAN | 601897003F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4126440 5' |
| 12068 | 25049 | 38757 | 3.29 | 1.0E-85 | AI198420.1 | EST_HUMAN | qi56a07.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:1860468 3' |
| 12330 | 25404 | 32045 | 4.68 | 1.0E-85 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 12601 | 25404 | 32045 | 2.92 | 1.0E-85 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 1460 | 14613 | | 25.01 | 9.0E-86 | BE274217.1 | EST_HUMAN | 601120778F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2967690 5' |
| 6254 | 19428 | 32774 | 0.62 | 8.0E-86 | 11424140 | NT | Homo sapiens similar to CDC28 protein kinase 1 (H. sapiens) (LOC63041), mRNA |
| 233 | 13454 | 26480 | 2.2 | 7.0E-86 | 7662247 | NT | Homo sapiens KIAA0680 gene product (KIAA0680), mRNA |
| 960 | 14133 | 27192 | 1.03 | 7.0E-86 | AA860801.1 | EST_HUMAN | aj88f08.s1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1403559 3' |
| 960 | 14133 | 27193 | 1.03 | 7.0E-86 | AA860801.1 | EST_HUMAN | aj88f08.s1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:1403559 3' |
| 6325 | 19497 | 32853 | 0.97 | 7.0E-86 | 9966886 | NT | Homo sapiens tumor endothelial marker 7 precursor (TEM7), mRNA |
| 6325 | 19497 | 32854 | 0.97 | 7.0E-86 | 9966886 | NT | Homo sapiens tumor endothelial marker 7 precursor (TEM7), mRNA |
| 7116 | 18542 | 31499 | 6.43 | 7.0E-86 | 11421737 | NT | Homo sapiens Tax1 (human T-cell leukemia virus type I) binding protein 1 (TAX1BP1), mRNA |
| 8943 | 22022 | 35562 | 3.98 | 7.0E-86 | L38557.1 | NT | Homo sapiens galactocerebrosidase (GALC) gene, exon 15 |
| 9901 | 22941 | | 1.13 | 7.0E-86 | 5453997 | NT | Homo sapiens RAN binding protein 7 (RANBP7), mRNA |
| 9960 | 22999 | 36595 | 1.68 | 7.0E-86 | 11526307 | NT | Homo sapiens DiGeorge syndrome critical region gene 6 (DGCR6), mRNA |
| 11204 | 24273 | 37909 | 1.44 | 7.0E-86 | 11417012 | NT | Homo sapiens similar to transcription factor CA150 (H. sapiens) (LOC63170), mRNA |
| 11204 | 24273 | 37910 | 1.44 | 7.0E-86 | 11417012 | NT | Homo sapiens similar to transcription factor CA150 (H. sapiens) (LOC63170), mRNA |
| 12117 | 25097 | 38802 | 1.99 | 7.0E-86 | 11418903 | NT | Homo sapiens coagulation factor XIII, A1 polypeptide (F13A1), mRNA |
| 1322 | 14478 | 27543 | 1.87 | 6.0E-86 | 4505492 | NT | Homo sapiens oxoglutarate dehydrogenase (lipoamide) (OGDH) mRNA |
| 217 | 13439 | 26471 | 2.15 | 4.0E-86 | BE547173.1 | EST_HUMAN | 601072594F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3458830 5' |
| 6159 | 19335 | 32680 | 11.61 | 4.0E-86 | BE295843.1 | EST_HUMAN | 601176865F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531953 5' |
| 11517 | 13439 | 26471 | 2.34 | 4.0E-86 | BE547173.1 | EST_HUMAN | 601072594F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3458830 5' |
| 4404 | 17547 | 30531 | 0.94 | 3.0E-86 | BE867703.1 | EST_HUMAN | 601443262F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847455 5' |
| 5713 | 18906 | 32201 | 6.19 | 3.0E-86 | AW340946.1 | EST_HUMAN | xz92h12.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2871719 3' |
| 8457 | 21538 | 35067 | 1.21 | 3.0E-86 | AV722329.1 | EST_HUMAN | AV722329 HTB Homo sapiens cDNA clone HTBBSD04 5' |
| 10425 | 23460 | 37065 | 3.54 | 3.0E-86 | BE886479.1 | EST_HUMAN | 601509696F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3911303 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10425 | 23460 | 37066 | 3.54 | 3.0E-86 | BE886479.1 | EST_HUMAN | 601509696F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3911303 5' |
| 11720 | 23906 | 37529 | 4.87 | 3.0E-86 | AI659240.1 | EST_HUMAN | tu18b02.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2251371 3' |
| 11803 | 24793 | 38491 | 1.37 | 3.0E-86 | AV690469.1 | EST_HUMAN | AV690469 GKC Homo sapiens cDNA clone GKCBSE02 5' |
| 12300 | 25971 |  | 3.38 | 3.0E-86 | BE410354.1 | EST_HUMAN | 601302333F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3636753 5' |
| 277 | 13495 | 26525 | 1.56 | 2.0E-86 | AA306264.1 | EST_HUMAN | EST177232 Jurkat T-cells VI Homo sapiens cDNA 5' end |
| 427 | 13622 |  | 2.69 | 2.0E-86 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 1217 | 14378 | 27437 | 3.33 | 2.0E-86 | N58977.1 | EST_HUMAN | yz19a08.r1 Soares_multiple_sclerosis_2NbHMSP Homo sapiens cDNA clone IMAGE:283478 5' |
| 2265 | 15398 | 28526 | 8.53 | 2.0E-86 | 9635487 | NT | Human endogenous retrovirus, complete genome |
| 2342 | 15473 | 28607 | 1.56 | 2.0E-86 | AB033103.1 | NT | Homo sapiens mRNA for KIAA1277 protein, partial cds |
| 3502 | 16669 | 29679 | 1.61 | 2.0E-86 | AW966142.1 | EST_HUMAN | EST378215 MAGE resequences, MAGI Homo sapiens cDNA |
| 3840 | 16999 | 30001 | 2.29 | 2.0E-86 | AF156776.1 | NT | Homo sapiens lysophosphatidic acid acyltransferase-delta (LPAAT-delta) mRNA, complete cds |
| 3840 | 16999 | 30002 | 2.29 | 2.0E-86 | AF156776.1 | NT | Homo sapiens lysophosphatidic acid acyltransferase-delta (LPAAT-delta) mRNA, complete cds |
| 4151 | 17303 |  | 2.59 | 2.0E-86 | AW515742.1 | EST_HUMAN | hd87g08.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2916542 3' |
| 4910 | 18040 | 31030 | 3.21 | 2.0E-86 | AF056490.1 | NT | Homo sapiens cAMP-specific phosphodiesterase 8A (PDE8A) mRNA, partial cds |
| 5993 | 19178 | 32499 | 1.32 | 2.0E-86 | Z16411.1 | NT | H.sapiens mRNA encoding phospholipase c |
| 5993 | 19178 | 32500 | 1.32 | 2.0E-86 | Z16411.1 | NT | H.sapiens mRNA encoding phospholipase c |
| 7221 | 25837 | 33501 | 0.78 | 2.0E-86 | 11419429 | NT | Homo sapiens similar to ectonucleotide pyrophosphatase/phosphodiesterase 3 (H. sapiens) (LOC63214), mRNA |
| 8199 | 21281 | 34803 | 0.58 | 2.0E-86 | U84744.1 | NT | Human Chediak-Higashi syndrome protein short isoform (LYST) mRNA, complete cds |
| 8772 | 21851 | 35392 | 2.62 | 2.0E-86 | 11437135 | NT | Homo sapiens butyrobetaine (gamma), 2-oxoglutarate dioxygenase (gamma-butyrobetaine hydroxylase) (BBOX), mRNA |
| 8772 | 21851 | 35393 | 2.52 | 2.0E-86 | 11437135 | NT | Homo sapiens butyrobetaine (gamma), 2-oxoglutarate dioxygenase (gamma-butyrobetaine hydroxylase) (BBOX), mRNA |
| 9104 | 22183 | 35728 | 0.68 | 2.0E-86 | 10863876 | NT | Homo sapiens phospholipid scramblase 1 (PLSCR1), mRNA |
| 9519 | 22584 | 36153 | 1.96 | 2.0E-86 | 11422084 | NT | Homo sapiens chromosome segregation 1 (yeast homolog)-like (CSE1L), mRNA |
| 10664 | 23698 | 37307 | 2.9 | 2.0E-86 | 11545846 | NT | Homo sapiens basic-helix-loop-helix-PAS protein (NPAS3), mRNA |
| 10664 | 23698 | 37308 | 2.9 | 2.0E-86 | 11545846 | NT | Homo sapiens basic-helix-loop-helix-PAS protein (NPAS3), mRNA |
| 10667 | 23701 | 37311 | 0.48 | 2.0E-86 | 11417120 | NT | Homo sapiens hypothetical protein FLJ20125 (FLJ20125), mRNA |
| 10721 | 23754 | 37360 | 1.25 | 2.0E-86 | AB037832.1 | NT | Homo sapiens mRNA for KIAA1411 protein, partial cds |
| 11143 | 24215 | 37842 | 1.76 | 2.0E-86 | 4759051 | NT | Homo sapiens ribosomal protein S6 kinase, 90kD, polypeptide 5 (RPS6KA5) mRNA |
| 12789 | 25527 | 32006 | 6.3 | 2.0E-86 | 11418189 | NT | Homo sapiens thyroid autoantigen 70kD (Ku antigen) (G22P1), mRNA |
| 12980 | 25638 |  | 2.56 | 2.0E-86 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 1627 | 14779 | 27864 | 2.15 | 1.0E-86 | 4826855 | NT | Homo sapiens NADH dehydrogenase (ubiquinone) Fe-S protein 1 (75kD) (NADH-coenzyme Q reductase) (NDUFS1) mRNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3231 | 16405 | 29417 | 1.68 | 1.0E-86 | 5453649 | NT | Homo sapiens fibulin 5 (FBLN5) mRNA |
| 3307 | 16481 | 29502 | 2.39 | 1.0E-86 | L20492.1 | NT | Human gamma-glutamyl transpeptidase mRNA, complete cds |
| 3368 | 16540 | 29553 | 1.74 | 1.0E-86 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 3368 | 16540 | 29564 | 1.74 | 1.0E-86 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 4380 | 17523 | 30504 | 5.41 | 1.0E-86 | AL163300.2 | NT | Homo sapiens chromosome 21 segment HS21C100 |
| 4743 | 17878 | 30861 | 0.94 | 1.0E-86 | 4507334 | NT | Homo sapiens synaptojanin 1 (SYNJ1), mRNA |
| 5670 | 18864 | 32149 | 1.85 | 1.0E-86 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 11905 | 18864 | 32149 | 1.53 | 1.0E-86 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 5472 | 18672 |  | 1.84 | 9.0E-87 | AI150703.1 | EST_HUMAN | qb77c09.x1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:1706128 3' similar to SW:K1CJ_MOUSE P02535 KERATIN, TYPE I CYTOSKELETAL 10 ; |
| 7606 | 20676 | 34150 | 1.82 | 9.0E-87 | 4757721 | NT | Homo sapiens a disintegrin and metalloproteinase domain 22 (ADAM22), mRNA |
| 7606 | 20676 | 34151 | 1.82 | 9.0E-87 | 4757721 | NT | Homo sapiens a disintegrin and metalloproteinase domain 22 (ADAM22), mRNA |
| 492 | 13686 | 26720 | 49.59 | 8.0E-87 | X62245.1 | NT | O.cuniculus mRNA for elongation factor 1 alpha |
| 2369 | 15500 | 28626 | 3.27 | 7.0E-87 | BF063211.1 | EST_HUMAN | 7h85f02.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:3322779 3' |
| 2369 | 15500 | 28627 | 3.27 | 7.0E-87 | BF063211.1 | EST_HUMAN | 7h85f02.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:3322779 3' |
| 6530 | 19694 | 33067 | 1.38 | 7.0E-87 | AW890336.1 | EST_HUMAN | MR0-NT0039-020500-004-a11 NT0039 Homo sapiens cDNA |
| 8384 | 21465 | 34990 | 3 | 7.0E-87 | BF352776.1 | EST_HUMAN | IL3-HT0619-060700-198-D10 HT0619 Homo sapiens cDNA |
| 9653 | 21096 | 34610 | 0.66 | 7.0E-87 | BE712961.1 | EST_HUMAN | IL5-HT0702-160600-103-d06 HT0702 Homo sapiens cDNA |
| 10276 | 23311 | 36907 | 3.38 | 7.0E-87 | AL043314.2 | EST_HUMAN | DKFZp434N0323_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N0323 5' |
| 10276 | 23311 | 36908 | 3.38 | 7.0E-87 | AL043314.2 | EST_HUMAN | DKFZp434N0323_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N0323 5' |
| 10686 | 25865 |  | 0.53 | 7.0E-87 | AI081565.1 | EST_HUMAN | ox59h01.s1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1660657 3' |
| 11129 | 24201 | 37825 | 6.59 | 7.0E-87 | K03002.1 | NT | Human mRNA from chromosome 15 gene with homology to MHC-HLA-SB-1 intron A |
| 11129 | 24201 | 37826 | 6.59 | 7.0E-87 | K03002.1 | NT | Human mRNA from chromosome 15 gene with homology to MHC-HLA-SB-1 intron A |
| 3615 | 16779 | 29794 | 1.19 | 6.0E-87 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 6551 | 19713 | 33089 | 1.47 | 6.0E-87 | AB028004.1 | NT | Homo sapiens mRNA for KIAA1081 protein, partial cds |
| 10963 | 24044 |  | 4.48 | 6.0E-87 | 11432444 | NT | Homo sapiens similar to SET translocation (myeloid leukemia-associated) (H. sapiens) (LOC63102), mRNA |
| 1184 | 14347 | 27404 | 1.62 | 5.0E-87 | AA382811.1 | EST_HUMAN | EST96094 Testis I Homo sapiens cDNA 5' end |
| 12603 | 14347 | 27404 | 2.58 | 5.0E-87 | AA382811.1 | EST_HUMAN | EST96094 Testis I Homo sapiens cDNA 5' end |
| 988 | 14160 | 27220 | 1.37 | 4.0E-87 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 1199 | 14361 | 27420 | 7.91 | 4.0E-87 | AB037835.1 | NT | Homo sapiens mRNA for KIAA1414 protein, partial cds |
| 1461 | 14614 | 27696 | 1.31 | 4.0E-87 | R78133.1 | EST_HUMAN | yi80f10.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:145579 5' similar to contains Alu repetitive element; |
| 2086 | 15228 | 28348 | 2.28 | 4.0E-87 | AB007925.1 | NT | Homo sapiens mRNA for KIAA0456 protein, partial cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2143 | 15279 | 28402 | 1.29 | 4.0E-87 | R78133.1 | EST_HUMAN | y.80f10.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:145579 5' similar to contains Alu repetitive element; |
| 2143 | 15279 | 28403 | 1.29 | 4.0E-87 | R78133.1 | EST_HUMAN | yi80f10.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:145579 5' similar to contains Alu repetitive element; |
| 2493 | 15620 | 28738 | 0.99 | 4.0E-87 | 7706299 | NT | Homo sapiens CGI-60 protein (LOC51626), mRNA |
| 2493 | 15620 | 28739 | 0.99 | 4.0E-87 | 7706299 | NT | Homo sapiens CGI-60 protein (LOC51626), mRNA |
| 3553 | 16718 | 29732 | 3.61 | 4.0E-87 | 5174574 | NT | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA |
| 5562 | 18759 | 31798 | 4.6 | 4.0E-87 | O00321 | SWISSPROT | ETS-RELATED PROTEIN 71 (ETS TRANSLOCATION VARIANT 2) |
| 5869 | 19059 | 32366 | 0.58 | 4.0E-87 | U85429.1 | NT | Human transcription factor NFATx3 mRNA, complete cds |
| 6170 | 19346 | 32692 | 4.34 | 4.0E-87 | BE247284.1 | EST_HUMAN | TCBAP1E4051 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP4051 |
| 7848 | 20903 | 34406 | 0.71 | 4.0E-87 | 11425291 | NT | Homo sapiens KIAA1072 protein (KIAA1072), mRNA |
| 7848 | 20903 | 34407 | 0.71 | 4.0E-87 | 11425291 | NT | Homo sapiens KIAA1072 protein (KIAA1072), mRNA |
| 7950 | 21000 | 34510 | 3.64 | 4.0E-87 | L48524.1 | NT | Homo sapiens tuberin (TSC2) gene, exon 10 |
| 11437 | 24498 | 38165 | 3.42 | 4.0E-87 | M60676.1 | NT | Human von Willebrand factor pseudogene corresponding to exons 23 through 34 |
| 12705 | 26023 | 31671 | 1.27 | 4.0E-87 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 12705 | 26023 | 31672 | 1.27 | 4.0E-87 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 12896 | 25593 |  | 58.7 | 4.0E-87 | 11417812 | NT | Homo sapiens purinergic receptor P2X-like 1, orphan receptor (P2RXL1), mRNA |
| 2836 | 15950 | 29057 | 14.35 | 2.0E-87 | 4885420 | NT | Homo sapiens high-mobility group (nonhistone chromosomal) protein 4 (HMG4) mRNA |
| 3884 | 17043 | 30042 | 1.02 | 2.0E-87 | AU116935.1 | EST_HUMAN | AU116935 HEMBA1 Homo capiens cDNA clone HEMBA1000307 5' |
| 5033 | 18161 | 31138 | 3.2 | 2.0E-87 | BF376311.1 | EST_HUMAN | CM0-TN0038-150900-552-h08 TN0038 Homo sapiens cDNA |
| 5076 | 18204 | 31176 | 0.8 | 2.0E-87 | BE175478.1 | EST_HUMAN | RC5-HT0580-200300-031-G04 HT0580 Homo sapiens cDNA |
| 5778 | 18970 | 32275 | 12.22 | 2.0E-87 | BE734190.1 | EST_HUMAN | 601569041F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3843730 5' |
| 5778 | 18970 | 32276 | 12.22 | 2.0E-87 | BE734190.1 | EST_HUMAN | 601569041F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3843730 5' |
| 6456 | 19623 |  | 4.87 | 2.0E-87 | BE567193.1 | EST_HUMAN | 601341383F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3683348 5' |
| 6838 | 19991 | 33399 | 0.79 | 2.0E-87 | N48128.1 | EST_HUMAN | yw21e07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:243396 5' |
| 6920 | 20235 | 33668 | 0.75 | 2.0E-87 | AV654143.1 | EST_HUMAN | AV654143 GLC Homo sapiens cDNA clone GLCDSG04 3' |
| 7324 | 20406 | 33868 | 1.35 | 2.0E-87 | BE294432.1 | EST_HUMAN | 601176032F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531511 5' |
| 7374 | 20453 | 33918 | 0.7 | 2.0E-87 | 11433046 | NT | Homo sapiens hect domain and RLD 2 (HERC2), mRNA |
| 7611 | 20681 | 34157 | 36.59 | 2.0E-87 | N48128.1 | EST_HUMAN | yw21e07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:243396 5' |
| 7864 | 20918 | 34424 | 35.3 | 2.0E-87 | N48128.1 | EST_HUMAN | yw21e07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:243396 5' |
| 8589 | 21670 | 35209 | 3.35 | 2.0E-87 | X52851.1 | NT | Human cyclophilin gene for cyclophilin (EC 5.2.1.8) |
| 9988 | 23027 |  | 4.88 | 2.0E-87 | BE531136.1 | EST_HUMAN | 601278316F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3610539 5' |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1209 | 15989 | | 2.2 | 1.0E-87 | 7705683 | NT | Homo sapiens putative glycolipid transfer protein (LOC51054), mRNA |
| 1463 | 14616 | 27698 | 1.61 | 1.0E-87 | AW361977.1 | EST_HUMAN | PM2-CT0265-141099-001-g04 CT0265 Homo sapiens cDNA |
| 1463 | 14616 | 27699 | 1.61 | 1.0E-87 | AW361977.1 | EST_HUMAN | PM2-CT0265-141099-001-g04 CT0265 Homo sapiens cDNA |
| 3801 | 16962 | 29966 | 5.18 | 1.0E-87 | Y00052.1 | NT | Human mRNA for T-cell cyclophilin |
| 3828 | 16988 | 29991 | 2.3 | 1.0E-87 | 4758827 | NT | Homo sapiens neurexin III (NRXN3) mRNA |
| 6356 | 19526 | 32883 | 1.63 | 1.0E-87 | AF073371.1 | NT | Homo sapiens growth factor receptor-bound protein 10 (GRB10) gene, exon 8 |
| 6356 | 19526 | 32884 | 1.63 | 1.0E-87 | AF073371.1 | NT | Homo sapiens growth factor receptor-bound protein 10 (GRB10) gene, exon 8 |
| 7333 | 20414 | 33876 | 1.09 | 1.0E-87 | 4506786 | NT | Homo sapiens IQ motif containing GTPase activating protein 1 (IQGAP1) mRNA |
| 7558 | 20630 | 34105 | 1.05 | 1.0E-87 | 11431590 | NT | Homo sapiens protein kinase C, beta 1 (PRKCB1), mRNA |
| 7707 | 20772 | 34257 | 0.92 | 1.0E-87 | 4506786 | NT | Homo sapiens IQ motif containing GTPase activating protein 1 (IQGAP1) mRNA |
| 8307 | 21389 | 34912 | 9.93 | 1.0E-87 | AF214562.1 | NT | Homo sapiens tracheal epithelium enriched protein (PLUNC) gene, complete cds |
| 9110 | 22189 | 35732 | 0.95 | 1.0E-87 | AB022918.1 | NT | Homo sapiens mRNA for alpha2,3-sialyltransferase ST3Gal VI, complete cds |
| 9110 | 22189 | 35733 | 0.95 | 1.0E-87 | AB022918.1 | NT | Homo sapiens mRNA for alpha2,3-sialyltransferase ST3Gal VI, complete cds |
| 9833 | 22873 | 36456 | 2.92 | 1.0E-87 | BE818183.1 | EST_HUMAN | RC6-BN0276-050700-012-E02 BN0276 Homo sapiens cDNA |
| 9833 | 22873 | 36457 | 2.92 | 1.0E-87 | BE818183.1 | EST_HUMAN | RC6-BN0276-050700-012-E02 BN0276 Homo sapiens cDNA |
| 10584 | 23619 | 37225 | 0.88 | 1.0E-87 | M34426.1 | NT | Human L-plastin mRNA, 5' end |
| 10970 | 24050 | 37683 | 2.11 | 1.0E-87 | 5729867 | NT | Homo sapiens hect domain and RLD 2 (HERC2), mRNA |
| 11247 | 24316 | | 1.66 | 1.0E-87 | D10083.1 | NT | Homo sapiens RGH1 gene, retrovirus-like element |
| 12701 | 26190 | | 2.31 | 1.0E-87 | 7657632 | NT | Homo sapiens sulfotransferase-related protein (SULTX3), mRNA |
| 13228 | 25798 | 31890 | 1.22 | 1.0E-87 | AF169558.1 | NT | Homo sapiens beta-ureidopropionase (BUP1) gene, exon 9 |
| 13228 | 25798 | 31891 | 1.22 | 1.0E-87 | AF169558.1 | NT | Homo sapiens beta-ureidopropionase (BUP1) gene, exon 9 |
| 1130 | 14295 | 27350 | 8.48 | 9.0E-88 | AF167465.1 | NT | Homo sapiens double stranded RNA activated protein kinase (PKR) gene, exon 12 |
| 1380 | 14535 | 27609 | 2.94 | 9.0E-88 | AB037820.1 | NT | Homo sapiens mRNA for KIAA1399 protein, partial cds |
| 1380 | 14535 | 27610 | 2.94 | 9.0E-88 | AB037820.1 | NT | Homo sapiens mRNA for KIAA1399 protein, partial cds |
| 2189 | 15324 | 28449 | 0.99 | 9.0E-88 | 7661701 | NT | Homo sapiens DKFZP586P1522 protein (DKFZP586P1522), mRNA |
| 3717 | 16878 | 29883 | 1 | 9.0E-88 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 4384 | 17527 | 30508 | 2.97 | 9.0E-88 | X91929.1 | NT | H.sapiens ECE-1 gene (exon 9) |
| 4384 | 17527 | 30509 | 2.97 | 9.0E-88 | X91929.1 | NT | H.sapiens ECE-1 gene (exon 9) |
| 9223 | 22301 | 35845 | 4.04 | 6.0E-88 | AF003528.1 | NT | Homo sapiens X-linked anhidroitic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 1875 | 15019 | | 1.22 | 5.0E-88 | 7661887 | NT | Homo sapiens KIAA0063 gene product (KIAA0063), mRNA |
| 2704 | 15822 | 28939 | 3.65 | 5.0E-88 | N89399.1 | EST_HUMAN | K9719F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone K9719 5' similar to ZINC FINGER PROTEIN HZF1 |
| 3064 | 16240 | 29260 | 0.62 | 5.0E-88 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3076 | 16251 | 29272 | 0.71 | 5.0E-88 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 3075 | 16251 | 29273 | 0.71 | 5.0E-88 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 3476 | 16643 | | 2.78 | 5.0E-88 | AI693217.1 | EST_HUMAN | wd68h08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2336799 3' similar to contains Alu repetitive element;contains element MER22 MER22 repetitive element ; |
| 3625 | 16789 | 29806 | 0.75 | 5.0E-88 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 4869 | 17992 | 30979 | 0.71 | 5.0E-88 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 6910 | 20225 | 33656 | 2.67 | 5.0E-88 | H10932.1 | EST_HUMAN | ym06b10.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:47129 5' |
| 8114 | 21196 | 34715 | 2.67 | 5.0E-88 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 9512 | 22577 | 36143 | 0.53 | 5.0E-88 | BF680206.1 | EST_HUMAN | 602154958F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4295775 5' |
| 1360 | 14515 | 27589 | 0.96 | 4.0E-88 | BF091229.1 | EST_HUMAN | PM1-TN0028-050900-004-f10 TN0028 Homo sapiens cDNA |
| 1360 | 14515 | 27590 | 0.96 | 4.0E-88 | BF091229.1 | EST_HUMAN | PM1-TN0028-050900-004-f10 TN0028 Homo sapiens cDNA |
| 5244 | 18365 | 31333 | 0.65 | 4.0E-88 | BF670714.1 | EST_HUMAN | 602149762F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4290975 5' |
| 7392 | 20470 | 33936 | 1.7 | 4.0E-88 | 11416585 | NT | Homo sapiens transforming growth factor, beta-induced, 68kD (TGFBI), mRNA |
| 11150 | 24221 | 37849 | 1.54 | 4.0E-88 | 4502694 | NT | Homo sapiens cell division cycle 10 (homologous to CDC10 of S. cerevisiae) (CDC10) mRNA |
| 11779 | 24769 | 38464 | 1.72 | 4.0E-88 | 7661947 | NT | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |
| 11779 | 24769 | 38465 | 1.72 | 4.0E-88 | 7661947 | NT | Homo sapiens KIAA0152 gene product (KIAA0152), mRNA |
| 750 | 13931 | 26974 | 1.25 | 3.0E-88 | 11545800 | NT | Homo sapiens hypothetical protein FLJ21634 (FLJ21634), mRNA |
| 1855 | 15001 | | 3.09 | 3.0E-88 | 4508020 | NT | Homo sapiens zinc finger protein 259 (ZNF259) mRNA |
| 3013 | 16189 | 29214 | 6.08 | 3.0E-88 | N66951.1 | EST_HUMAN | za48f12.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:295823 3' |
| 4355 | 17498 | 30477 | 0.81 | 3.0E-88 | 4501912 | NT | Homo sapiens a disintegrin and metalloproteinase domain 23 (ADAM23) mRNA |
| 4355 | 17498 | 30478 | 0.81 | 3.0E-88 | 4501912 | NT | Homo sapiens a disintegrin and metalloproteinase domain 23 (ADAM23) mRNA |
| 4600 | 17737 | | 4.81 | 3.0E-88 | 11429300 | NT | Homo sapiens hypothetical protein FLJ20220 (FLJ20220), mRNA |
| 5414 | 18616 | 31590 | 2.79 | 3.0E-88 | 11429567 | NT | Homo sapiens valosin-containing protein (VCP), mRNA |
| 5703 | 18896 | 32188 | 3.63 | 3.0E-88 | 9966888 | NT | Homo sapiens polycythemia rubra vera 1; cell surface receptor (PRV1), mRNA |
| 5822 | 19012 | 32318 | 3.9 | 3.0E-88 | 11420697 | NT | Homo sapiens v-ral simian leukemia viral oncogene homolog A (ras related) (RALA), mRNA |
| 6290 | 19463 | 32815 | 0.72 | 3.0E-88 | 11417370 | NT | Homo sapiens interleukin 13 (IL13), mRNA |
| 6543 | 25826 | 33080 | 0.84 | 3.0E-88 | 11419210 | NT | Homo sapiens activator of S phase kinase (ASK), mRNA |
| 6543 | 25826 | 33081 | 0.84 | 3.0E-88 | 11419210 | NT | Homo sapiens activator of S phase kinase (ASK), mRNA |
| 7211 | 20076 | 33489 | 15.52 | 3.0E-88 | AF279265.1 | NT | Homo sapiens putative anion transporter 1 mRNA, complete cds |
| 7712 | 20777 | 34263 | 6.63 | 3.0E-88 | 11436400 | NT | Homo sapiens retinoblastoma-binding protein 2 (RBBP2), mRNA |
| 8105 | 21187 | 34707 | 9.3 | 3.0E-88 | 11421726 | NT | Homo sapiens growth differentiation factor 5 (cartilage-derived morphogenetic protein-1) (GDF5), mRNA |
| 8390 | 21471 | 34997 | 1.58 | 3.0E-88 | AF034374.1 | NT | Homo sapiens molybdenum cofactor biosynthesis protein A and molybdenum cofactor biosynthesis protein C mRNA, complete cds |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9634 | 21077 | 34589 | 2.14 | 3.0E-88 | 11526262 | NT | Homo sapiens v-ets avian erythroblastosis virus E26 oncogene related (ERG), mRNA |
| 10132 | 23170 | 36767 | 0.76 | 3.0E-88 | AB015228.1 | NT | Homo sapiens mRNA for RALDH2-T, complete cds |
| 10132 | 23170 | 36768 | 0.76 | 3.0E-88 | AB015228.1 | NT | Homo sapiens mRNA for RALDH2-T, complete cds |
| 10162 | 23199 | 36794 | 0.6 | 3.0E-88 | 11439065 | NT | Homo sapiens acyl-Coenzyme A dehydrogenase family, member 8 (ACAD8), mRNA |
| 12424 | 25301 | | 2.49 | 3.0E-88 | 11417974 | NT | Homo sapiens transcobalamin II; macrocytic anemia (TCN2), mRNA |
| 12439 | 26030 | 31676 | 1.63 | 3.0E-88 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 13223 | 25796 | 31889 | 1.31 | 3.0E-88 | 11526140 | NT | Homo sapiens protease, serine, 7 (enterokinase) (PRSS7), mRNA |
| 1061 | 14227 | 27283 | 6.85 | 2.0E-88 | 7305198 | NT | Homo sapiens Calsenilin, presenilin-binding protein, EF hand transcription factor (CSEN), mRNA |
| 1653 | 14806 | 27891 | 4.24 | 2.0E-88 | AF246219.1 | NT | Homo sapiens SNARE protein kinase SNAK mRNA, complete cds |
| 1789 | 14938 | 28031 | 6.83 | 2.0E-88 | AF246219.1 | NT | Homo sapiens SNARE protein kinase SNAK mRNA, complete cds |
| 3554 | 16719 | 29733 | 2.9 | 2.0E-88 | AF246219.1 | NT | Homo sapiens SNARE protein kinase SNAK mRNA, complete cds |
| 4545 | 17683 | 30665 | 1.93 | 2.0E-88 | 5031666 | NT | Homo sapiens dynein, axonemal, light polypeptide 4 (DNAL4), mRNA |
| 6032 | 19216 | 32536 | 4.98 | 1.0E-88 | AW139565.1 | EST_HUMAN | UI-H-BI1-aea-d-04-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2718750 3' |
| 6032 | 19215 | 32537 | 4.98 | 1.0E-88 | AW139565.1 | EST_HUMAN | UI-H-BI1-aea-d-04-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2718750 3' |
| 6783 | 19938 | 33334 | 21.66 | 1.0E-88 | AB007877.1 | NT | Homo sapiens KIAA0417 mRNA, complete cds |
| 6783 | 19938 | 33335 | 21.66 | 1.0E-88 | AB007877.1 | NT | Homo sapiens KIAA0417 mRNA, complete cds |
| 7271 | 20354 | 33807 | 1.52 | 1.0E-88 | AI969034.1 | EST_HUMAN | wq70a12.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2476606 3' |
| 7334 | 20415 | 33877 | 3.7 | 1.0E-88 | AA488981.1 | EST_HUMAN | aa54a11.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:824732 3' similar to WP:B0272.2 CE00851 ; |
| 8331 | 21413 | 34939 | 0.51 | 1.0E-88 | AF135183.1 | NT | Homo sapiens Recq helicase 5 (RECQ5) gene, alternative splice products, complete cds |
| 9443 | 22559 | 36122 | 0.76 | 1.0E-88 | AA190368.1 | EST_HUMAN | zp87c02.r1 Stratagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:627170 5' similar to SW:POL1_HUMAN P10266 RETROVIRUS-RELATED POL POLYPROTEIN ; |
| 9778 | 22818 | 36396 | 2.83 | 1.0E-88 | AL043314.2 | EST_HUMAN | DKFZp434N0323_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N0323 5' |
| 11730 | 23916 | 37541 | 3.35 | 1.0E-88 | AA991479.1 | EST_HUMAN | os91g03.s1 NCI_CGAP_GC3 Homo sapiens cDNA clone IMAGE:1612756 3' similar to gb:M16342 HETEROGENEOUS NUCLEAR RIBONUCLEOPROTEINS C1/C2 (HUMAN); |
| 12665 | 25442 | | 4.28 | 1.0E-88 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 13232 | 25800 | 31850 | 1.54 | 1.0E-88 | AW451790.1 | EST_HUMAN | UI-H-BI3-alk-b-03-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2737084 3' |
| 11194 | 24263 | 37898 | 8.14 | 9.0E-89 | 11421238 | NT | Homo sapiens transgelin 2 (TAGLN2), mRNA |
| 2795 | 15910 | 29019 | 1.75 | 8.0E-89 | BE311557.1 | EST_HUMAN | 601142409F1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:3506186 5' |
| 7072 | 20125 | 33541 | 1.14 | 8.0E-89 | 11421514 | NT | Homo sapiens similar to sema domain, immunoglobulin domain (Ig), short basic domain, secreted, (semaphorin) 3A (H. sapiens) (LOC63232), mRNA |
| 446 | 13642 | 26680 | 1.41 | 7.0E-89 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 446 | 13642 | 26681 | 1.41 | 7.0E-89 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 5005 | 18134 | 31108 | 2.71 | 7.0E-89 | 4557390 | NT | Homo sapiens complement component 8, beta polypeptide (C8B) mRNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6046 | 18174 | 31151 | 7.29 | 7.0E-89 | AL045748.1 | EST_HUMAN | DKFZp434E246_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434E246 5' |
| 5547 | 18744 | 31778 | 1.22 | 7.0E-89 | X99832.1 | NT | H.sapiens CLN3 gene, complete CDS |
| 5547 | 18744 | 31779 | 1.22 | 7.0E-89 | X99832.1 | NT | H.sapiens CLN3 gene, complete CDS |
| 6473 | 19640 | 33000 | 1.57 | 7.0E-89 | 7549808 | NT | Homo sapiens plastin 3 (T isoform) (PLS3), mRNA |
| 6473 | 19640 | 33001 | 1.57 | 7.0E-89 | 7549808 | NT | Homo sapiens plastin 3 (T isoform) (PLS3), mRNA |
| 7668 | 20734 | 34211 | 1.84 | 7.0E-89 | 11420754 | NT | Homo sapiens actin related protein 2/3 complex, subunit 1A (41 kD) (ARPC1A), mRNA |
| 8063 | 21145 | 34664 | 0.68 | 7.0E-89 | 11417118 | NT | Homo sapiens KIAA0433 protein (KIAA0433), mRNA |
| 8063 | 21145 | 34665 | 0.68 | 7.0E-89 | 11417118 | NT | Homo sapiens KIAA0433 protein (KIAA0433), mRNA |
| 8674 | 21754 | 35289 | 0.53 | 7.0E-89 | J02923.1 | NT | Human 65-kilodalton phosphoprotein (p65) mRNA, complete cds |
| 10750 | 23783 | 37395 | 1.34 | 7.0E-89 | X62048.1 | NT | H.sapiens Wee1 hu gene |
| 10750 | 23783 | 37396 | 1.34 | 7.0E-89 | X62048.1 | NT | H.sapiens Wee1 hu gene |
| 10768 | 23801 | 37423 | 1.35 | 7.0E-89 | AB020630.1 | NT | Homo sapiens mRNA for KIAA0823 protein, partial cds |
| 10768 | 23801 | 37424 | 1.35 | 7.0E-89 | AB020630.1 | NT | Homo sapiens mRNA for KIAA0823 protein, partial cds |
| 11516 | 24572 | 38250 | 2.66 | 7.0E-89 | M59783.1 | NT | Human aldose reductase (AR) gene, segment 2 |
| 1048 | 14214 | 27271 | 1.39 | 6.0E-89 | 5803114 | NT | Homo sapiens inner membrane protein, mitochondrial (mitofilin) (IMMT), mRNA |
| 2287 | 16419 | 28551 | 2.52 | 6.0E-89 | 4506124 | NT | Homo sapiens serine/threonine-protein kinase PRP4 homolog (PRP4) mRNA |
| 2504 | 15631 | 28750 | 1.61 | 6.0E-89 | 4507788 | NT | Homo sapiens ubiquitin-conjugating enzyme E2L 3 (UBE2L3) mRNA |
| 2504 | 15631 | 28751 | 1.61 | 6.0E-89 | 4507788 | NT | Homo sapiens ubiquitin-conjugating enzyme E2L 3 (UBE2L3) mRNA |
| 4759 | 17894 | 30873 | 3.79 | 6.0E-89 | AB007866.2 | NT | Homo sapiens mRNA for KIAA0406 protein, partial cds |
| 4759 | 17894 | 30874 | 3.79 | 6.0E-89 | AB007866.2 | NT | Homo sapiens mRNA for KIAA0406 protein, partial cds |
| 5295 | 18413 | 31379 | 0.81 | 6.0E-89 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 5295 | 18413 | 31380 | 0.81 | 6.0E-89 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 5186 | 18308 | 31273 | 3.36 | 5.0E-89 | BE244323.1 | EST_HUMAN | TCBAP2E0383 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP0383 |
| 5186 | 18308 | 31274 | 3.36 | 5.0E-89 | BE244323.1 | EST_HUMAN | TCBAP2E0383 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP0383 |
| 7761 | 20820 | 34310 | 1.02 | 4.0E-89 | BE762749.1 | EST_HUMAN | QV3-NT0022-080600-219-g03 NT0022 Homo sapiens cDNA |
| 2941 | 16118 | 29131 | 1.63 | 3.0E-89 | AW978181.1 | EST_HUMAN | EST388290 MAGE resequonces, MAGN Homo sapiens cDNA |
| 7290 | 20372 | 33828 | 1.3 | 3.0E-89 | AI217359.1 | EST_HUMAN | qh17b06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1844915 3' |
| 11039 | 24118 | 37751 | 2.29 | 3.0E-89 | N57357.1 | EST_HUMAN | yw86e11.r1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:259148 5' similar to SW:PI4K_HUMAN P42356 PHOSPHATIDYLINOSITOL 4-KINASE ALPHA ; |
| 12790 | 25916 | 31863 | 1.52 | 3.0E-89 | AV708431.1 | EST_HUMAN | AV708431 ADC Homo sapiens cDNA clone ADCARE02 5' |
| 12886 | 25587 | 31969 | 1.82 | 3.0E-89 | AV705749.1 | EST_HUMAN | AV705749 ADB Homo sapiens cDNA clone ADBBGA01 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 129 | 13616 | 26656 | 0.73 | 2.0E-89 | 7706670 | NT | Homo sapiens PXR2b protein (PXR2b), mRNA |
| 129 | 13616 | 26657 | 0.73 | 2.0E-89 | 7706670 | NT | Homo sapiens PXR2b protein (PXR2b), mRNA |
| 421 | 13616 | 26656 | 0.89 | 2.0E-89 | 7706670 | NT | Homo sapiens PXR2b protein (PXR2b), mRNA |
| 421 | 13616 | 26657 | 0.89 | 2.0E-89 | 7706670 | NT | Homo sapiens PXR2b protein (PXR2b), mRNA |
| 543 | 13736 | 26760 | 0.63 | 2.0E-89 | AB037763.1 | NT | Homo sapiens mRNA for KIAA1342 protein, partial cds |
| 2945 | 16122 | 29135 | 1.53 | 2.0E-89 | AI222095.1 | EST_HUMAN | qg96c08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843022 3' similar to gb:J04131 GAMMA-GLUTAMYLTRANSPEPTIDASE 1 PRECURSOR (HUMAN);contains Alu repetitive element; |
| 4263 | 17408 | 30394 | 1.18 | 2.0E-89 | AF089897.1 | NT | Homo sapiens topoisomerase-related function protein (TRF4-2) mRNA, partial cds |
| 4269 | 17414 | 30402 | 5.14 | 2.0E-89 | X58742.1 | NT | H.sapiens HCK gene for tyrosine kinase (PTK), exons 10-11 |
| 4269 | 17414 | 30403 | 5.14 | 2.0E-89 | X58742.1 | NT | H.sapiens HCK gene for tyrosine kinase (PTK), exons 10-11 |
| 4469 | 17609 | 30587 | 1.13 | 2.0E-89 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 4619 | 17756 | 30738 | 1 | 2.0E-89 | AJ007378.1 | NT | Homo sapiens GGT gene, exon 6 |
| 5459 | 18659 | | 1.39 | 2.0E-89 | BE541744.1 | EST_HUMAN | 601065996F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3452423 5' |
| 5598 | 18793 | 31842 | 3.56 | 2.0E-89 | AB007546.1 | NT | Homo sapiens gene for LECT2, complete cds |
| 5909 | 19098 | 32412 | 1.5 | 2.0E-89 | U03985.1 | NT | Human N-ethylmaleimide-sensitive factor mRNA, partial cds |
| 6339 | 19509 | 32865 | 0.79 | 2.0E-89 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 7847 | 20902 | 34405 | 5.28 | 2.0E-89 | U81004.1 | NT | Human GT24 (GT24) mRNA, partial cds |
| 8119 | 21201 | 34722 | 3.11 | 2.0E-89 | 11428801 | NT | Homo sapiens solute carrier family 24 (sodium/potassium/calcium exchanger), member 2 (SLC24A2), mRNA |
| 8612 | 21692 | 35229 | 0.9 | 2.0E-89 | AJ245503.1 | NT | Homo sapiens partial mRNA for PEX5 related protein |
| 9463 | 22569 | 36136 | 0.72 | 2.0E-89 | AB037754.1 | NT | Homo sapiens mRNA for KIAA1333 protein, partial cds |
| 10015 | 23053 | 36647 | 1.22 | 2.0E-89 | AF170814.1 | NT | Homo sapiens CaBP5 (CABP5) gene, exon 5 |
| 10015 | 23053 | 36648 | 1.22 | 2.0E-89 | AF170814.1 | NT | Homo sapiens CaBP5 (CABP5) gene, exon 5 |
| 11655 | 24734 | 38425 | 2.63 | 2.0E-89 | 11434411 | NT | Homo sapiens integrin, alpha 3 (antigen CD49C, alpha 3 subunit of VLA-3 receptor) (ITGA3), mRNA |
| 11871 | 24859 | 38554 | 3.52 | 2.0E-89 | 11433673 | NT | Homo sapiens cell adhesion molecule with homology to L1CAM (close homologue of L1) (CHL1), mRNA |
| 12017 | 25001 | 38703 | 1.64 | 2.0E-89 | U10692.1 | NT | Human MAGE-7 antigen (MAGE7) pseudogene, complete cds |
| 12877 | 25584 | | 4.25 | 2.0E-89 | AF156961.1 | NT | Homo sapiens human endogenous retrovirus W gagC3.37 G gag (gag) gene, complete cds |
| 11877 | 24865 | 38561 | 6.88 | 1.0E-89 | BF196052.1 | EST_HUMAN | hr81d09.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3134897 3' similar to TR:O54778 O54778 SOLUTE CARRIER FAMILY 22 -LIKE 2 PROTEIN ; |
| 11877 | 24865 | 38562 | 6.88 | 1.0E-89 | BF196052.1 | EST_HUMAN | hr81d09.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3134897 3' similar to TR:O54778 O54778 SOLUTE CARRIER FAMILY 22 -LIKE 2 PROTEIN ; |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8422 | 21603 | 35035 | 1.07 | 9.0E-90 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 8422 | 21603 | 35036 | 1.07 | 9.0E-90 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 1088 | 14254 | 27309 | 4.38 | 8.0E-90 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 1089 | 14254 | 27309 | 2.91 | 8.0E-90 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 1361 | 16035 | 27591 | 3.26 | 8.0E-90 | BE670561.1 | EST_HUMAN | 7e36f08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284583 3' |
| 1361 | 16035 | 27592 | 3.26 | 8.0E-90 | BE670561.1 | EST_HUMAN | 7e36f08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3284583 3' |
| 8757 | 21836 | 35377 | 0.6 | 8.0E-90 | BE177830.1 | EST_HUMAN | RC1-HT0598-120400-022-b08 HT0598 Homo sapiens cDNA |
| 10939 | 24021 | 37654 | 1.38 | 8.0E-90 | AI222095.1 | EST_HUMAN | qg96c08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843022 3' similar to gb:J04131 GAMMA-GLUTAMYLTRANSPEPTIDASE 1 PRECURSOR (HUMAN);contains Alu repetitive element; |
| 10939 | 24021 | 37655 | 1.38 | 8.0E-90 | AI222095.1 | EST_HUMAN | qg96c08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843022 3' similar to gb:J04131 GAMMA-GLUTAMYLTRANSPEPTIDASE 1 PRECURSOR (HUMAN);contains Alu repetitive element; |
| 859 | 14036 |  | 6.81 | 7.0E-90 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 8619 | 21699 |  | 2.14 | 7.0E-90 | AA782977.1 | EST_HUMAN | al63d08.s1 Soares_testis_NHT Homo sapiens cDNA clone 1375503 3' |
| 9166 | 22244 | 35787 | 2.13 | 7.0E-90 | BE962525.2 | EST_HUMAN | 601655837R1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3855824 3' |
| 9166 | 22244 | 35788 | 2.13 | 7.0E-90 | BE962525.2 | EST_HUMAN | 601655837R1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3855824 3' |
| 10220 | 23256 | 36844 | 0.46 | 7.0E-90 | AW273794.1 | EST_HUMAN | xv24a02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2814026 3' |
| 10340 | 23375 | 36985 | 4.2 | 7.0E-90 | H68849.1 | EST_HUMAN | yr86e04.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:212190 3' similar to SP:C1TC_HUMAN P11586 C-1-TETRAHYDROFOLATE SYNTHASE, CYTOPLASMIC ; |
| 10340 | 23375 | 36986 | 4.2 | 7.0E-90 | H68849.1 | EST_HUMAN | yr86e04.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:212190 3' similar to SP:C1TC_HUMAN P11586 C-1-TETRAHYDROFOLATE SYNTHASE, CYTOPLASMIC ; |
| 10672 | 23706 | 37314 | 0.62 | 7.0E-90 | BF526089.1 | EST_HUMAN | 602071208F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4214257 5' |
| 3136 | 16312 | 29324 | 1.16 | 6.0E-90 | X91926.1 | NT | H.sapiens ECE-1 gene (exon 6) |
| 3136 | 16312 | 29325 | 1.16 | 6.0E-90 | X91926.1 | NT | H.sapiens ECE-1 gene (exon 6) |
| 4342 | 17485 | 30467 | 11.21 | 6.0E-90 | 8922398 | NT | Homo sapiens hypothetical protein FLJ10388 (FLJ10388), mRNA |
| 4342 | 17485 | 30468 | 11.21 | 6.0E-90 | 8922398 | NT | Homo sapiens hypothetical protein FLJ10388 (FLJ10388), mRNA |
| 6105 | 19285 | 32618 | 2.84 | 6.0E-90 | U77700.1 | NT | Homo sapiens HsGCN1 mRNA, partial cds |
| 6105 | 19285 | 32619 | 2.84 | 6.0E-90 | U77700.1 | NT | Homo sapiens HsGCN1 mRNA, partial cds |
| 8522 | 21603 | 35140 | 4.01 | 6.0E-90 | 4504794 | NT | Homo sapiens inositol 1,4,5-triphosphate receptor, type 3 (ITPR3) mRNA |
| 8522 | 21603 | 35141 | 4.01 | 6.0E-90 | 4504794 | NT | Homo sapiens inositol 1,4,5-triphosphate receptor, type 3 (ITPR3) mRNA |
| 159 | 13384 |  | 27.59 | 5.0E-90 | AB035344.1 | NT | Homo sapiens TCL6 gene, exon 1-10b |
| 1219 | 14380 | 27439 | 6.22 | 5.0E-90 | U80226.1 | NT | Human gamma-aminobutyric acid transaminase mRNA, partial cds |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1864 | 15010 | 28116 | 1.07 | 5.0E-90 | AI222095.1 | EST_HUMAN | qg96c08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843022 3' similar to gb:J04131 GAMMA-GLUTAMYLTRANSPEPTIDASE 1 PRECURSOR (HUMAN);contains Alu repetitive element; |
| 1864 | 15010 | 28117 | 1.07 | 5.0E-90 | AI222095.1 | EST_HUMAN | qg96c08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843022 3' similar to gb:J04131 GAMMA-GLUTAMYLTRANSPEPTIDASE 1 PRECURSOR (HUMAN);contains Alu repetitive element; |
| 2622 | 15745 | 28859 | 2.37 | 5.0E-90 | AF114487.1 | NT | Homo sapiens intersectin long isoform (ITSN) mRNA, complete cds |
| 4662 | 17797 | 30784 | 4.51 | 5.0E-90 | 4506354 | NT | Homo sapiens pregnancy-zone protein (PZP) mRNA |
| 4683 | 17818 | 30806 | 0.78 | 5.0E-90 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 5708 | 18901 | 32196 | 2.85 | 5.0E-90 | Z16411.1 | NT | H.sapiens mRNA encoding phospholipase c |
| 5726 | 18919 |  | 0.72 | 5.0E-90 | AF008915.1 | NT | Homo sapiens EVI5 homolog mRNA, complete cds |
| 5810 | 19000 | 32307 | 1.32 | 5.0E-90 | AB015617.1 | NT | Homo sapiens ELKS mRNA, complete cds |
| 5886 | 18901 | 32196 | 1.88 | 5.0E-90 | Z16411.1 | NT | H.sapiens mRNA encoding phospholipase c |
| 6869 | 20021 | 33430 | 0.95 | 5.0E-90 | 9910365 | NT | Homo sapiens Carbonic anhydrase-related protein 10 (LOC56934), mRNA |
| 6869 | 20021 | 33431 | 0.95 | 5.0E-90 | 9910365 | NT | Homo sapiens Carbonic anhydrase-related protein 10 (LOC56934), mRNA |
| 7364 | 20443 | 33905 | 2.04 | 5.0E-90 | AF113708.1 | NT | Homo sapiens angiopoietin 4 (ANG4) mRNA, partial cds |
| 7364 | 20443 | 33906 | 2.04 | 5.0E-90 | AF113708.1 | NT | Homo sapiens angiopoietin 4 (ANG4) mRNA, partial cds |
| 7736 | 20797 | 34286 | 7.98 | 5.0E-90 | 4557258 | NT | Homo sapiens adenylate cyclase 9 (ADCY9) mRNA |
| 8488 | 21669 | 35107 | 4.89 | 5.0E-90 | 11345483 | NT | Homo sapiens hypothetical protein FLJ13222 (FLJ13222), mRNA |
| 9882 | 22922 | 36506 | 1.17 | 5.0E-90 | 11419429 | NT | Homo sapiens similar to ectonucleotide pyrophosphatase/phosphodiesterase 3 (H. sapiens) (LOC63214), mRNA |
| 10488 | 23523 | 37133 | 0.71 | 5.0E-90 | AF123303.1 | NT | Homo sapiens calcium-binding transporter mRNA, partial cds |
| 10663 | 23697 | 37306 | 9.66 | 5.0E-90 | 11433721 | NT | Homo sapiens ATPase, aminophospholipid transporter-like, Class I, type 8A, member 2 (ATP8A2), mRNA |
| 10723 | 23756 | 37362 | 0.53 | 5.0E-90 | 7662051 | NT | Homo sapiens KIAA0317 gene product (KIAA0317), mRNA |
| 10723 | 23756 | 37363 | 0.53 | 5.0E-90 | 7662051 | NT | Homo sapiens KIAA0317 gene product (KIAA0317), mRNA |
| 12948 | 25659 |  | 1.77 | 5.0E-90 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 13000 | 25649 |  | 4.54 | 5.0E-90 | AI523366.1 | EST_HUMAN | ar78h05.x1 Barstead aorta HPLRB6 Homo sapiens cDNA clone IMAGE:2128761 3' |
| 313 | 13529 | 26562 | 2.04 | 4.0E-90 | AF231920.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 313 | 13529 | 26563 | 2.04 | 4.0E-90 | AF231920.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 1110 | 14275 | 27332 | 4.36 | 4.0E-90 | 4505316 | NT | Homo sapiens myosin phosphatase, target subunit 1 (MYPT1), mRNA |
| 1724 | 14874 | 27966 | 13.42 | 4.0E-90 | X99033.1 | NT | H.sapiens gene encoding discoidin receptor tyrosine kinase, exon 16 |
| 2923 | 16101 | 29114 | 0.74 | 4.0E-90 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 2923 | 16101 | 29115 | 0.74 | 4.0E-90 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3088 | 16264 | 29281 | 0.93 | 4.0E-90 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 3088 | 16264 | 29282 | 0.93 | 4.0E-90 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 4779 | 17914 | 30900 | 3.63 | 4.0E-90 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 4919 | 18049 | 31037 | 2.1 | 4.0E-90 | AB033070.1 | NT | Homo sapiens mRNA for KIAA1244 protein, partial cds |
| 4939 | 18069 | 31047 | 1.91 | 4.0E-90 | M95967.1 | NT | Human prohormone converting enzyme (NEC2) gene, exon 8 |
| 12885 | 16101 | 29114 | 1.74 | 4.0E-90 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 12885 | 16101 | 29115 | 1.74 | 4.0E-90 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 8036 | 21119 | 34638 | 0.91 | 3.0E-90 | BF516168.1 | EST_HUMAN | UI-H-BW1-any-b-04-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3083839 3' |
| 8036 | 21119 | 34639 | 0.91 | 3.0E-90 | BF516168.1 | EST_HUMAN | UI-H-BW1-any-b-04-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3083839 3' |
| 11930 | 24916 | 38619 | 28.7 | 3.0E-90 | BE563833.1 | EST_HUMAN | 601335244F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3689147 5' |
| 220 | 13442 | 26473 | 4.5 | 2.0E-90 | BE537913.1 | EST_HUMAN | 601067378F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3453834 5' |
| 1200 | 14362 | 27421 | 6.48 | 2.0E-90 | 5031748 | NT | Homo sapiens high-mobility group (nonhistone chromosomal) protein 17 (HMG17), mRNA |
| 1200 | 14362 | 27422 | 6.48 | 2.0E-90 | 5031748 | NT | Homo sapiens high-mobility group (nonhistone chromosomal) protein 17 (HMG17), mRNA |
| 3948 | 17106 | 30103 | 2.95 | 2.0E-90 | AI138213.1 | EST_HUMAN | qc54c02.x1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:1713410 3' similar to SW:OLF3_MOUSE P23275 OLFACTORY RECEPTOR OR3. ; |
| 4811 | 17944 | 30930 | 1.05 | 2.0E-90 | AB006627.1 | NT | Homo sapiens mRNA for KIAA0289 gene, partial cds |
| 5029 | 18158 | 31135 | 10.16 | 2.0E-90 | 5729855 | NT | Homo sapiens GRB2-related adaptor protein (GRAP) mRNA |
| 5896 | 19084 | 32395 | 0.6 | 2.0E-90 | 11525901 | NT | Homo sapiens RaP2 interacting protein 8 (RPIP8), mRNA |
| 5896 | 19084 | 32396 | 0.6 | 2.0E-90 | 11525901 | NT | Homo sapiens RaP2 interacting protein 8 (RPIP8), mRNA |
| 5903 | 19092 | 32406 | 3.89 | 2.0E-90 | AW672686.1 | EST_HUMAN | ba49d05.y3 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2899881 5' similar to TR:O75208 O75208 HYPOTHETICAL 35.5 KD PROTEIN. ; |
| 9993 | 23032 | 36623 | 0.99 | 2.0E-90 | 11427320 | NT | Homo sapiens similar to laminin receptor 1 (67kD, ribosomal protein SA) (H. sapiens) (LOC63484), mRNA |
| 9993 | 23032 | 36624 | 0.99 | 2.0E-90 | 11427320 | NT | Homo sapiens similar to laminin receptor 1 (67kD, ribosomal protein SA) (H. sapiens) (LOC63484), mRNA |
| 10165 | 23202 | 36795 | 1.46 | 2.0E-90 | AU118985.1 | EST_HUMAN | AU118985 HEMBA1 Homo sapiens cDNA clone HEMBA1004795 5' |
| 10165 | 23202 | 36796 | 1.46 | 2.0E-90 | AU118985.1 | EST_HUMAN | AU118985 HEMBA1 Homo sapiens cDNA clone HEMBA1004795 5' |
| 11758 | 23944 | 37571 | 3.06 | 2.0E-90 | 11024711 | NT | Homo sapiens myosin, heavy polypeptide 4, skeletal muscle (MYH4), mRNA |
| 287 | 13506 | 26539 | 4.1 | 1.0E-90 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 385 | 15983 | 26628 | 2.28 | 1.0E-90 | AF231920.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 386 | 15983 | 26628 | 1.56 | 1.0E-90 | AF231920.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 713 | 13895 | 26932 | 1.92 | 1.0E-90 | AJ237589.1 | NT | Homo sapiens mRNA for T-box transcription factor (TBX20 gene), partial |
| 713 | 13895 | 26933 | 1.92 | 1.0E-90 | AJ237589.1 | NT | Homo sapiens mRNA for T-box transcription factor (TBX20 gene), partial |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 748 | 13929 | 26971 | 17.93 | 1.0E-90 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 748 | 13929 | 26972 | 17.93 | 1.0E-90 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 1134 | 14299 | | 2.25 | 1.0E-90 | 4507828 | NT | Homo sapiens Kruppel-like factor 7 (ubiquitous) (KLF7), mRNA |
| 1334 | 14491 | 27560 | 3.46 | 1.0E-90 | AF096154.1 | NT | Homo sapiens protein phosphatase 2A BR gamma subunit gene, exon 3 |
| 1334 | 14491 | 27561 | 3.46 | 1.0E-90 | AF096154.1 | NT | Homo sapiens protein phosphatase 2A BR gamma subunit gene, exon 3 |
| 1701 | 14853 | | 2.61 | 1.0E-90 | BE379884.1 | EST_HUMAN | 601159563F2 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3511118 5' |
| 1951 | 15094 | 28195 | 3.73 | 1.0E-90 | 11420514 | NT | Homo sapiens similar to SALL1 (sal (Drosophila)-like (LOC57167), mRNA |
| 2916 | 16093 | 29106 | 6.46 | 1.0E-90 | 6005720 | NT | Homo sapiens chromosome 8 open reading frame 2 (C8ORF2), mRNA |
| 3954 | 17112 | 30112 | 0.59 | 1.0E-90 | AB020710.1 | NT | Homo sapiens mRNA for KIAA0903 protein, partial cds |
| 3954 | 17112 | 30113 | 0.59 | 1.0E-90 | AB020710.1 | NT | Homo sapiens mRNA for KIAA0903 protein, partial cds |
| 4543 | 17681 | 30663 | 1.68 | 1.0E-90 | AF167340.1 | NT | Homo sapiens soluble interleukin 1 receptor accessory protein (IL1RAP) gene, exon 8, alternative exons 9 and complete cds, alternatively spliced |
| 5792 | 18983 | 32286 | 2.08 | 1.0E-90 | AB014533.1 | NT | Homo sapiens mRNA for KIAA0633 protein, partial cds |
| 5959 | 19145 | 32460 | 0.9 | 1.0E-90 | 11426910 | NT | Homo sapiens KIAA0623 gene product (KIAA0623), mRNA |
| 7220 | 20085 | 33500 | 0.73 | 1.0E-90 | U91934.1 | NT | Human retina-derived POU-domain factor-1 mRNA, complete cds |
| 7849 | 20904 | 34408 | 2.31 | 1.0E-90 | 11426758 | NT | Homo sapiens solute carrier family 1 (high affinity aspartate/glutamate transporter), member 6 (SLC1A6), mRNA |
| 9021 | 22100 | 35640 | 3 | 1.0E-90 | 11422086 | NT | Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 2 (BIG2), mRNA |
| 9493 | 22550 | | 0.92 | 1.0E-90 | AF163864.1 | NT | Homo sapiens SNCA isoform (SNCA) gene, complete cds, alternatively spliced |
| 9516 | 22581 | 36148 | 1.4 | 1.0E-90 | 11422109 | NT | Homo sapiens CGI-15 protein (LOC51006), mRNA |
| 9516 | 22581 | 36149 | 1.4 | 1.0E-90 | 11422109 | NT | Homo sapiens CGI-15 protein (LOC51006), mRNA |
| 4313 | 17456 | 30444 | 8.29 | 8.0E-91 | D12234.1 | EST_HUMAN | HUM000S381 Liver HepG2 cell line. Homo sapiens cDNA clone s381 3' |
| 8501 | 21582 | 35118 | 1.14 | 7.0E-91 | 11419234 | NT | Homo sapiens makorin, ring finger protein, 1 (MKRN1), mRNA |
| 10607 | 23542 | 37153 | 0.65 | 7.0E-91 | AI904151.1 | EST_HUMAN | CM-BT043-090299-075 BT043 Homo sapiens cDNA |
| 3563 | 16728 | 29744 | 1.85 | 5.0E-91 | AA702794.1 | EST_HUMAN | zi90b04.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:448015 3' |
| 4639 | 17775 | 30755 | 1.14 | 5.0E-91 | AU143539.1 | EST_HUMAN | AU143539 Y79AA1 Homo sapiens cDNA clone Y79AA1002087 5' |
| 4639 | 17775 | 30756 | 1.14 | 5.0E-91 | AU143539.1 | EST_HUMAN | AU143539 Y79AA1 Homo sapiens cDNA clone Y79AA1002087 5' |
| 4930 | 18060 | 31042 | 0.67 | 5.0E-91 | 7110634 | NT | Homo sapiens chromosome 22 open reading frame 5 (C22ORF5), mRNA |
| 4930 | 18060 | 31043 | 0.67 | 5.0E-91 | 7110634 | NT | Homo sapiens chromosome 22 open reading frame 5 (C22ORF5), mRNA |
| 6760 | 19906 | 33300 | 1.25 | 5.0E-91 | AI879995.1 | EST_HUMAN | au49f09.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2518121 3' similar to SW:ASPG_FLAME Q47898 N4-(BETA-N-ACETYLGLUCOSAMINYL)-L-ASPARAGINASE PRECURSOR |
| 8400 | 21481 | 35009 | 1.33 | 5.0E-91 | BF314682.1 | EST_HUMAN | 601901624F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4130933 5' |
| 8960 | 22039 | 35581 | 1.47 | 5.0E-91 | AV649878.1 | EST_HUMAN | AV649878 GLC Homo sapiens cDNA clone GLCBYF08 3' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8960 | 22039 | 35582 | 1.47 | 5.0E-91 | AV649878.1 | EST_HUMAN | AV649878 GLC Homo sapiens cDNA clone GLCBYF08 3' |
| 12971 | 25631 | | 1.61 | 5.0E-91 | AI193566.1 | EST_HUMAN | qe70f11.x1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:1744365 3' similar to contains MIR.b2 MIR MIR repetitive element ; |
| 3272 | 16446 | 29465 | 1.58 | 4.0E-91 | AF156776.1 | NT | Homo sapiens lysophosphatidic acid acyltransferase-delta (LPAAT-delta) mRNA, complete cds |
| 3272 | 16446 | 29466 | 1.58 | 4.0E-91 | AF156776.1 | NT | Homo sapiens lysophosphatidic acid acyltransferase-delta (LPAAT-delta) mRNA, complete cds |
| 11171 | 24242 | 37875 | 3.22 | 4.0E-91 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 12376 | 25267 | 32074 | 3.27 | 4.0E-91 | M77994.1 | EST_HUMAN | EST01579 Hippocampus, Stratagene (cat. #936205) Homo sapiens cDNA clone HHCMC60 similar to Retrovirus-related gag polyprotein |
| 12376 | 25267 | 32119 | 3.27 | 4.0E-91 | M77994.1 | EST_HUMAN | EST01579 Hippocampus, Stratagene (cat. #936205) Homo sapiens cDNA clone HHCMC60 similar to Retrovirus-related gag polyprotein |
| 12685 | 25457 | 32019 | 1.16 | 4.0E-91 | M77994.1 | EST_HUMAN | EST01579 Hippocampus, Stratagene (cat. #936205) Homo sapiens cDNA clone HHCMC60 similar to Retrovirus-related gag polyprotein |
| 12685 | 25457 | 32020 | 1.16 | 4.0E-91 | M77994.1 | EST_HUMAN | EST01579 Hippocampus, Stratagene (cat. #936205) Homo sapiens cDNA clone HHCMC60 similar to Retrovirus-related gag polyprotein |
| 1647 | 14800 | 27885 | 2.17 | 3.0E-91 | 11430193 | NT | Homo sapiens solute carrier family 4, anion exchanger, member 3 (SLC4A3), mRNA |
| 1647 | 14800 | 27886 | 2.17 | 3.0E-91 | 11430193 | NT | Homo sapiens solute carrier family 4, anion exchanger, member 3 (SLC4A3), mRNA |
| 1832 | 15993 | 28077 | 1.1 | 3.0E-91 | AF265555.1 | NT | Homo sapiens ubiquitin-conjugating BIR-domain enzyme APOLLON mRNA, complete cds |
| 3420 | 16589 | 29605 | 1.29 | 3.0E-91 | AL163283.2 | NT | Homo sapiens chromosome 21 segment HS21C083 |
| 3551 | 16716 | 29729 | 4.85 | 3.0E-91 | AB033104.1 | NT | Homo sapiens mRNA for KIAA1278 protein, partial cds |
| 3551 | 16716 | 20730 | 4.85 | 3.0E-91 | AB033104.1 | NT | Homo sapiens mRNA for KIAA1278 protein, partial cds |
| 3888 | 17047 | 30047 | 0.93 | 3.0E-91 | AF084530.1 | NT | Homo sapiens cyclin-D binding Myb-like protein mRNA, complete cds |
| 4714 | 17849 | 30832 | 4.41 | 3.0E-91 | M30938.1 | NT | Human Ku (p70/p80) subunit mRNA, complete cds |
| 5094 | 18222 | 31193 | 1.48 | 3.0E-91 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 6094 | 18222 | 31194 | 1.48 | 3.0E-91 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 5803 | 18993 | 32296 | 3.55 | 3.0E-91 | 11434964 | NT | Homo sapiens epididymal secretory protein (19.5kD) (HE1), mRNA |
| 6434 | 19602 | | 2.56 | 3.0E-91 | 4502740 | NT | Homo sapiens cyclin-dependent kinase 6 (CDK6) mRNA |
| 6713 | 19871 | 33262 | 2.98 | 3.0E-91 | 11497611 | NT | Homo sapiens gamma-aminobutyric acid (GABA) B receptor, 1 (GABBR1), transcript variant 2, mRNA |
| 6713 | 19871 | 33263 | 2.98 | 3.0E-91 | 11497611 | NT | Homo sapiens gamma-aminobutyric acid (GABA) B receptor, 1 (GABBR1), transcript variant 2, mRNA |
| 7816 | 20871 | 34368 | 4.48 | 3.0E-91 | U86959.1 | NT | Human L-type calcium channel beta-1 subunit (CACNLB1) gene, exons 10 and 11 |
| 7816 | 20871 | 34369 | 4.48 | 3.0E-91 | U86959.1 | NT | Human L-type calcium channel beta-1 subunit (CACNLB1) gene, exons 10 and 11 |
| 8132 | 21214 | 34735 | 0.69 | 3.0E-91 | 6601589 | NT | Homo sapiens ankyrin-like with transmembrane domains 1 (ANKTM1), mRNA |
| 8970 | 22049 | 35592 | 2.73 | 3.0E-91 | D16494.1 | NT | Human mRNA for very low density lipoprotein receptor, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9488 | 22545 | 36108 | 0.73 | 3.0E-91 | AB011166.1 | NT | Homo sapiens mRNA for KIAA0594 protein, partial cds |
| 11480 | 24539 | 38207 | 1.49 | 3.0E-91 | AB029003.1 | NT | Homo sapiens mRNA for KIAA1080 protein, partial cds |
| 11480 | 24539 | 38208 | 1.49 | 3.0E-91 | AB029003.1 | NT | Homo sapiens mRNA for KIAA1080 protein, partial cds |
| 13037 | 18486 | 31430 | 8.54 | 3.0E-91 | AF169555.1 | NT | Homo sapiens beta-ureidopropionase (BUP1) gene, exon 6 |
| 13037 | 18486 | 31431 | 8.54 | 3.0E-91 | AF169555.1 | NT | Homo sapiens beta-ureidopropionase (BUP1) gene, exon 6 |
| 49 | 13288 | 26300 | 2.94 | 1.0E-91 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 1274 | 14431 | 27502 | 2.74 | 1.0E-91 | AW449746.1 | EST_HUMAN | UI-H-BI3-aks-d-01-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2735280 3' |
| 5529 | 18726 | 31742 | 0.78 | 1.0E-91 | 11434402 | NT | Homo sapiens hypothetical protein PRO1855 (PRO1855), mRNA |
| 6983 | 20211 | 33640 | 1.96 | 1.0E-91 | BF348182.1 | EST_HUMAN | 602022088F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4157804 5' |
| 6983 | 20211 | 33641 | 1.96 | 1.0E-91 | BF348182.1 | EST_HUMAN | 602022088F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4157804 5' |
| 12130 | 25110 | 38814 | 1.48 | 1.0E-91 | AV763053.1 | EST_HUMAN | AV763053 MDS Homo sapiens cDNA clone MDSBEC05 5' |
| 12540 | 26114 |  | 1.5 | 1.0E-91 | H15212.1 | EST_HUMAN | ym30e03.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:49587 5' |
| 1270 | 14428 | 27496 | 5.77 | 9.0E-92 | AJ001689.1 | NT | Homo sapiens NKG2D gene, exon 10 |
| 1270 | 14428 | 27497 | 5.77 | 9.0E-92 | AJ001689.1 | NT | Homo sapiens NKG2D gene, exon 10 |
| 5309 | 18426 | 31396 | 0.66 | 9.0E-92 | AB020640.1 | NT | Homo sapiens mRNA for KIAA0833 protein, partial cds |
| 5579 | 18774 | 31820 | 5.86 | 9.0E-92 | J03007.1 | NT | Human Na+,K+ ATPase alpha-subunit mRNA, partial cds |
| 5722 | 18915 | 32210 | 2.62 | 9.0E-92 | 11427149 | NT | Homo sapiens hypothetical protein FLJ20280 (FLJ20280), mRNA |
| 6583 | 19745 | 33127 | 3.77 | 9.0E-92 | AF310105.1 | NT | Homo sapiens NALP1 mRNA, complete cds |
| 8041 | 21124 | 34644 | 0.55 | 9.0E-92 | AJ250566.1 | NT | Homo sapiens partial TM4SF2 gene for tetraspanin protein, exon 5 |
| 8041 | 21124 | 34645 | 0.55 | 9.0E-92 | AJ250566.1 | NT | Homo sapiens partial TM4SF2 gene for tetraspanin protein, exon 5 |
| 8569 | 21650 | 35191 | 1.53 | 9.0E-92 | AB040945.1 | NT | Homo sapiens mRNA for KIAA1512 protein, partial cds |
| 8569 | 21650 | 35192 | 1.53 | 9.0E-92 | AB040945.1 | NT | Homo sapiens mRNA for KIAA1512 protein, partial cds |
| 9474 | 22531 | 36095 | 1.83 | 9.0E-92 | 11422086 | NT | Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 2 (BIG2), mRNA |
| 95 | 13330 | 26357 | 6.63 | 8.0E-92 | W26367.1 | EST_HUMAN | 26f3 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |
| 296 | 13513 | 26547 | 3.09 | 8.0E-92 | BE386363.1 | EST_HUMAN | 601273513F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3614667 5' |
| 1866 | 15012 | 28119 | 1.43 | 8.0E-92 | 11434722 | NT | Homo sapiens diacylglycerol kinase, gamma (90kD) (DGKG), mRNA |
| 1866 | 15012 | 28120 | 1.43 | 8.0E-92 | 11434722 | NT | Homo sapiens diacylglycerol kinase, gamma (90kD) (DGKG), mRNA |
| 5508 | 18707 | 31722 | 0.68 | 8.0E-92 | AB046820.1 | NT | Homo sapiens mRNA for KIAA1600 protein, partial cds |
| 5615 | 18809 | 31877 | 0.8 | 8.0E-92 | AF264717.1 | NT | Homo sapiens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP2 mRNA, complete cds |
| 6677 | 19836 | 33225 | 1.28 | 8.0E-92 | AJ000979.1 | NT | Homo sapiens MCP-4 gene |
| 6680 | 19839 | 33228 | 0.91 | 8.0E-92 | AF179428.1 | NT | Homo sapiens DNA polymerase zeta catalytic subunit variant 1 (REV3L) mRNA, complete cds |
| 8283 | 21365 |  | 0.55 | 8.0E-92 | 11416961 | NT | Homo sapiens AIM-1 protein (LOC51151), mRNA |
| 8620 | 21700 | 35235 | 5.05 | 8.0E-92 | L04193.1 | NT | Human lens membrane protein (mp19) gene, exon 11 |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8620 | 21700 | 35236 | 5.05 | 8.0E-92 | L04193.1 | NT | Human lens membrane protein (mp19) gene, exon 11 |
| 8721 | 21801 | 35337 | 0.71 | 8.0E-92 | 11426569 | NT | Homo sapiens transcription termination factor, RNA polymerase II (TTF2), mRNA |
| 9262 | 22339 | 35889 | 2.53 | 8.0E-92 | AB014511.1 | NT | Homo sapiens mRNA for KIAA0611 protein, partial cds |
| 10232 | 23267 | 36857 | 0.91 | 8.0E-92 | Y13829.1 | NT | Homo sapiens mRNA for MBNL protein |
| 11043 | 24121 | 37755 | 2.86 | 8.0E-92 | AF074393.1 | NT | Homo sapiens nuclear mitogen- and stress-activated protein kinase-1 (MSK1) mRNA, complete cds |
| 11642 | 24722 | 38415 | 1.93 | 8.0E-92 | 4503340 | NT | Homo sapiens dihydrolipoamide S-succinyltransferase (E2 component of 2-oxo-glutarate complex) (DLST) mRNA |
| 12740 | 25491 | 32028 | 1.59 | 8.0E-92 | 11434704 | NT | Homo sapiens fragile X mental retardation, autosomal homolog 1 (FXR1), mRNA |
| 68 | 13305 | 26328 | 1.91 | 7.0E-92 | M60676.1 | NT | Human von Willebrand factor pseudogene corresponding to exons 23 through 34 |
| 246 | 16008 | 26498 | 1.71 | 7.0E-92 | AB018301.1 | NT | Homo sapiens mRNA for KIAA0758 protein, partial cds |
| 246 | 16008 | 26499 | 1.71 | 7.0E-92 | AB018301.1 | NT | Homo sapiens mRNA for KIAA0758 protein, partial cds |
| 604 | 13793 |  | 1.68 | 7.0E-92 | AF007822.1 | NT | Homo sapiens cytoplasmic Seprase truncated isoform mRNA, complete cds |
| 1309 | 14465 | 27533 | 1.94 | 7.0E-92 | 4502384 | NT | Homo sapiens B-cell CLL/lymphoma 7b (BCL7B) mRNA |
| 2260 | 15393 | 28519 | 3.85 | 7.0E-92 | 5031570 | NT | Homo sapiens ARP2 (actin-related protein 2, yeast) homolog (ACTR2), mRNA |
| 2260 | 15393 | 28520 | 3.85 | 7.0E-92 | 5031570 | NT | Homo sapiens ARP2 (actin-related protein 2, yeast) homolog (ACTR2), mRNA |
| 2630 | 15753 | 28868 | 6.13 | 7.0E-92 | AF167706.1 | NT | Homo sapiens cysteine-rich repeat-containing protein S52 precursor, mRNA, complete cds |
| 2787 | 15903 | 29010 | 6.84 | 7.0E-92 | 6005738 | NT | Homo sapiens NRAS-related gene (D1S155E), mRNA |
| 3426 | 18466 | 29609 | 0.7 | 7.0E-92 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 3426 | 18466 | 29610 | 0.7 | 7.0E-92 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 4710 | 17845 | 30828 | 1.19 | 7.0E-92 | S71824.1 | NT | N-CAM=145 kda neural cell adhesion molecule [human, small cell lung cancer cell line OS2-R, mRNA, 2960 nt] |
| 4710 | 17845 | 30829 | 1.19 | 7.0E-92 | S71824.1 | NT | N-CAM=145 kda neural cell adhesion molecule [human, small cell lung cancer cell line OS2-R, mRNA, 2960 nt] |
| 5284 | 18403 | 31371 | 0.98 | 7.0E-92 | 4506118 | NT | Homo sapiens prospero-related homeobox 1 (PROX1) mRNA |
| 5376 | 18578 | 31446 | 5.51 | 7.0E-92 | AA446206.1 | EST_HUMAN | zw66d12.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:781175 5' |
| 2178 | 15313 | 28441 | 0.96 | 3.0E-92 | 11434814 | NT | Homo sapiens Machado-Joseph disease (spinocerebellar ataxia 3, olivopontocerebellar ataxia 3, autosomal dominant, ataxin 3) (MJD), mRNA |
| 2178 | 15313 | 28442 | 0.96 | 3.0E-92 | 11434814 | NT | Homo sapiens Machado-Joseph disease (spinocerebellar ataxia 3, olivopontocerebellar ataxia 3, autosomal dominant, ataxin 3) (MJD), mRNA |
| 2824 | 15938 | 29048 | 2.74 | 3.0E-92 | BE909714.1 | EST_HUMAN | 601501242F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3902939 5' |
| 5997 | 19182 | 32504 | 3.96 | 3.0E-92 | AA378336.1 | EST_HUMAN | EST91020 Synovial sarcoma Homo sapiens cDNA 5' end similar to similar to ribosomal protein S13 |
| 11002 | 24081 | 37716 | 3.26 | 3.0E-92 | X15804.1 | NT | Human mRNA for alpha-actinin |
| 11002 | 24081 | 37717 | 3.26 | 3.0E-92 | X15804.1 | NT | Human mRNA for alpha-actinin |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 12878 | 26198 | | 1.67 | 3.0E-92 | BF367138.1 | EST_HUMAN | RC1-GN0021-240800-012-e11 GN0021 Homo sapiens cDNA |
| 26 | 13264 | 26266 | 1.54 | 2.0E-92 | 4501898 | NT | Homo sapiens activin A receptor, type IIB (ACVR2B) mRNA |
| 183 | 13405 | 26433 | 4.28 | 2.0E-92 | 11422946 | NT | Homo sapiens hypothetical protein dJ462O23.2 (DJ462O23.2), mRNA |
| 183 | 13405 | 26434 | 4.28 | 2.0E-92 | 11422946 | NT | Homo sapiens hypothetical protein dJ462O23.2 (DJ462O23.2), mRNA |
| 768 | 13949 | 26997 | 5.49 | 2.0E-92 | BE299190.1 | EST_HUMAN | 601118337F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3028304 5' |
| 768 | 13949 | 26998 | 5.49 | 2.0E-92 | BE299190.1 | EST_HUMAN | 601118337F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3028304 5' |
| 1752 | 14901 | . | 1.62 | 2.0E-92 | S78653.1 | NT | mrg=mas-related [human, Genomic, 2416 nt] |
| 1990 | 15132 | 28236 | 2.53 | 2.0E-92 | AI818119.1 | EST_HUMAN | wk27d07.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2413549 3' similar to TR:Q12844 Q12844 BREAKPOINT CLUSTER REGION PROTEIN ; |
| 1990 | 15132 | 28237 | 2.53 | 2.0E-92 | AI818119.1 | EST_HUMAN | wk27d07.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:2413549 3' similar to TR:Q12844 Q12844 BREAKPOINT CLUSTER REGION PROTEIN ; |
| 2020 | 15161 | 28265 | 1.01 | 2.0E-92 | 4507464 | NT | Homo sapiens transforming growth factor, beta 3 (TGFB3), mRNA |
| 2020 | 15161 | 28266 | 1.01 | 2.0E-92 | 4507464 | NT | Homo sapiens transforming growth factor, beta 3 (TGFB3), mRNA |
| 2106 | 15245 | 28366 | 5.35 | 2.0E-92 | 4506860 | NT | Homo sapiens syndecan 4 (amphiglycan, ryudocan) (SDC4) mRNA |
| 2725 | 15843 | 28954 | 22.36 | 2.0E-92 | 6912457 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 3701 | 16862 | 29864 | 1.02 | 2.0E-92 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 3701 | 16862 | 29865 | 1.02 | 2.0E-92 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 3777 | 16938 | 29944 | 7.02 | 2.0E-92 | 5803180 | NT | Homo sapiens stress-induced-phosphoprotein 1 (Hsp70/Hsp90-organizing protein) (STIP1), mRNA |
| 4403 | 17546 | 30530 | 1.17 | 2.0E-92 | M10976.1 | NT | Human endogenous retroviral DNA (4-1), complete retroviral segment |
| 5108 | 18236 | | 4.1 | 2.0E-92 | AL040437.1 | EST_HUMAN | DKFZp434C0414_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434C0414 5' |
| 5879 | 19069 | 32377 | 0.64 | 2.0E-92 | AF016535.1 | NT | Homo sapiens P-glycoprotein (mdr1) mRNA, complete cds |
| 6431 | 19599 | | 7.19 | 2.0E-92 | 4504756 | NT | Homo sapiens integrin, alpha L (antigen CD11A (p180), lymphocyte function-associated antigen 1; alpha polypeptide) (ITGAL) mRNA |
| 6748 | 19904 | 33297 | 2.6 | 2.0E-92 | AB028991.1 | NT | Homo sapiens mRNA for KIAA1068 protein, partial cds |
| 7627 | 20697 | | 0.61 | 2.0E-92 | U67780.1 | NT | Human NPY Y1-like receptor pseudogene mRNA, complete cds |
| 7657 | 20697 | | 0.64 | 2.0E-92 | U67780.1 | NT | Human NPY Y1-like receptor pseudogene mRNA, complete cds |
| 9056 | 22135 | 35680 | 1.26 | 2.0E-92 | AW340174.1 | EST_HUMAN | hd02h02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2908371 3' similar to TR:O02711 O02711 PRO-POL-DUTPASE POLYPROTEIN ; |
| 10997 | 24076 | 37709 | 4.68 | 2.0E-92 | 11434900 | NT | Homo sapiens thyroid stimulating hormone receptor (TSHR), mRNA |
| 11257 | 24326 | 37965 | 3.22 | 2.0E-92 | 11434759 | NT | Homo sapiens zinc finger protein 198 (ZNF198), mRNA |
| 11409 | 24470 | 38134 | 5.71 | 2.0E-92 | AW836290.1 | EST_HUMAN | CM4-LT0026-161299-062-g06 LT0026 Homo sapiens cDNA |
| 11409 | 24470 | 38135 | 5.71 | 2.0E-92 | AW836290.1 | EST_HUMAN | CM4-LT0026-161299-062-g06 LT0026 Homo sapiens cDNA |
| 12758 | 25502 | 32035 | 8.46 | 2.0E-92 | AB029016.1 | NT | Homo sapiens mRNA for KIAA1093 protein, partial cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 12782 | 25524 | 32005 | 1.36 | 2.0E-92 | AF106656.1 | NT | Homo sapiens adenylosuccinate lyase gene, complete cds |
| 13066 | 15843 | 28964 | 73.58 | 2.0E-92 | 6912457 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 1897 | 15040 | 28150 | 2.95 | 1.0E-92 | R78078.1 | EST_HUMAN | yi80e08.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:145574 5' |
| 1897 | 15040 | 28151 | 2.95 | 1.0E-92 | R78078.1 | EST_HUMAN | yi80e08.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:145574 5' |
| 2135 | 15271 | 28392 | 35.12 | 1.0E-92 | 4506668 | NT | Homo sapiens ribosomal protein, large, P1 (RPLP1) mRNA |
| 8441 | 21522 | 35051 | 0.82 | 1.0E-92 | BE439625.1 | EST_HUMAN | HTM1-288F HTM1 Homo sapiens cDNA |
| 9365 | 22440 | 35999 | 3.24 | 1.0E-92 | AI380356.1 | EST_HUMAN | tg01b02.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2107467 3' similar to SW:PTNF_HUMAN Q16825 PROTEIN-TYROSINE PHOSPHATASE D1 ;contains Alu repetitive element;contains element MER17 repetitive element ; |
| 9365 | 22440 | 36000 | 3.24 | 1.0E-92 | AI380356.1 | EST_HUMAN | tg01b02.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2107467 3' similar to SW:PTNF_HUMAN Q16825 PROTEIN-TYROSINE PHOSPHATASE D1 ;contains Alu repetitive element;contains element MER17 repetitive element ; |
| 2085 | 15225 | 28347 | 3.53 | 9.0E-93 | AU121681.1 | EST_HUMAN | AU121681 MAMMA1 Homo sapiens cDNA clone MAMMA1000738 5' |
| 2100 | 15240 |  | 20.41 | 9.0E-93 | AA316723.1 | EST_HUMAN | EST188414 HCC cell line (metastasis to liver in mouse) II Homo sapiens cDNA 5' end similar to ribosomal protein L29 |
| 2712 | 15830 |  | 1.69 | 9.0E-93 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 3703 | 16864 | 29867 | 1.35 | 9.0E-93 | BE388571.1 | EST_HUMAN | 601281867F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3603832 5' |
| 11947 | 24933 |  | 7.79 | 9.0E-93 | 11418526 | NT | Homo sapiens ribosomal protein L10a (RPL10A), mRNA |
| 6723 | 19880 | 33271 | 2.4 | 8.0E-93 | BF036364.1 | EST_HUMAN | 601460521F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3863908 5' |
| 256 | 13475 | 26506 | 7.25 | 7.0E-93 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 3144 | 16320 | 29332 | 0.74 | 6.0E-93 | 11526176 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1), mRNA |
| 6819 | 19972 | 33380 | 0.97 | 6.0E-93 | AB033093.1 | NT | Homo sapiens mRNA for KIAA1267 protein, partial cds |
| 7056 | 20109 | 33525 | 7.64 | 6.0E-93 | AF095771.1 | NT | Homo sapiens PTH-responsive osteosarcoma B1 protein (B1) mRNA, complete cds |
| 1412 | 14566 | 27640 | 0.99 | 5.0E-93 | AB014511.1 | NT | Homo sapiens mRNA for KIAA0611 protein, partial cds |
| 1439 | 14592 | 27666 | 4.61 | 5.0E-93 | AI674184.1 | EST_HUMAN | wc09c08.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2314670 3' |
| 1439 | 14592 | 27667 | 4.61 | 5.0E-93 | AI674184.1 | EST_HUMAN | wc09c08.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2314670 3' |
| 1504 | 14657 |  | 4.17 | 5.0E-93 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 1869 | 16049 | 28123 | 1.03 | 5.0E-93 | AJ297710.1 | NT | Homo sapiens mRNA for CDC2L5 protein kinase, (CDC2L5 gene), isoform 2 |
| 3305 | 16479 | 29500 | 3.73 | 5.0E-93 | X04201.1 | NT | Human skeletal muscle 1.3 kb mRNA for tropomyocin |
| 5920 | 19107 | 32420 | 1.09 | 5.0E-93 | M22878.1 | NT | Human somatic cytochrome c (HC1) processed pseudogene, complete cds |
| 6235 | 19410 |  | 1.75 | 5.0E-93 | AF045555.1 | NT | Homo sapiens wbscr1 (WBSCR1) and wbscr5 (WBSCR5) genes, complete cds, alternatively spliced and replication factor C subunit 2 (RFC2) gene, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7892 | 20944 | 34450 | 3.52 | 5.0E-93 | AF067136.1 | NT | Homo sapiens protein phosphatase-1 regulatory subunit 7 (PPP1R7) gene, exon 11, complete cds and alternatively spliced product |
| 8804 | 21883 | 35422 | 0.73 | 5.0E-93 | 4557526 | NT | Homo sapiens discs, large (Drosophila) homolog 2 (chapsyn-110) (DLG2) mRNA |
| 8804 | 21883 | 35423 | 0.73 | 5.0E-93 | 4557526 | NT | Homo sapiens discs, large (Drosophila) homolog 2 (chapsyn-110) (DLG2) mRNA |
| 9822 | 22862 | 36443 | 2.02 | 5.0E-93 | AF274863.1 | NT | Homo sapiens secretory pathway component Sec31B-1 mRNA, alternatively spliced, complete cds |
| 10012 | 23050 | 36644 | 1.36 | 5.0E-93 | 5032156 | NT | Homo sapiens TAR (HIV) RNA-binding protein 1 (TARBP1) mRNA |
| 10275 | 23310 | 36906 | 1.78 | 5.0E-93 | AF069313.2 | NT | Homo sapiens WSB1 protein (WSB1) mRNA, complete cds |
| 11064 | 24140 | 37775 | 1.92 | 5.0E-93 | 11439599 | NT | Homo sapiens nucleobindin 2 (NUCB2), mRNA |
| 12651 | 25791 | 31921 | 2.31 | 5.0E-93 | 11417877 | NT | Homo sapiens gamma-glutamyltransferase 1 (GGT1), mRNA |
| 90 | 13325 |  | 5.63 | 4.0E-93 | AA459933.1 | EST_HUMAN | zx50e09.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:795688 3' similar to SW:CLPA_RAT P37397 CALPONIN, ACIDIC ISOFORM ; |
| 458 | 13653 | 26690 | 2.38 | 4.0E-93 | 4557879 | NT | Homo sapiens interferon gamma receptor 1 (IFNGR1) mRNA |
| 458 | 13653 | 26691 | 2.38 | 4.0E-93 | 4557879 | NT | Homo sapiens interferon gamma receptor 1 (IFNGR1) mRNA |
| 793 | 13972 | 27024 | 1.16 | 4.0E-93 | 7657454 | NT | Homo sapiens pescadillo (zebrafish) homolog 1, containing BRCT domain (PES1), mRNA |
| 793 | 13972 | 27025 | 1.16 | 4.0E-93 | 7657454 | NT | Homo sapiens pescadillo (zebrafish) homolog 1, containing BRCT domain (PES1), mRNA |
| 1210 | 14371 | 27431 | 2.12 | 4.0E-93 | 8923658 | NT | Homo sapiens hypothetical protein FLJ20731 (FLJ20731), mRNA |
| 2033 | 15174 | 28284 | 4.37 | 4.0E-93 | AF047677.1 | NT | Homo sapiens dystrophin (DMD) gene, deletion breakpoints 1-3 in intron 5 |
| 2318 | 15450 | 28582 | 1.19 | 4.0E-93 | AF157476.1 | NT | Homo sapiens DNA polymerase zeta catalytic subunit (REV3) mRNA, complete cds |
| 2672 | 15792 | 28909 | 1.16 | 4.0E-93 | 7656972 | NT | Homo sapiens TNF-inducible protein CG12-1 (CG12-1), mRNA |
| 3656 | 16819 | 29831 | 0.73 | 4.0E-93 | 7705390 | NT | Homo sapiens tumor antigen SLP-8p (HCC8), mRNA |
| 4159 | 17310 | 30306 | 1.51 | 4.0E-93 | 4504654 | NT | Homo sapiens interleukin 18 receptor 1 (IL18R1) mRNA |
| 5136 | 16819 | 29831 | 0.75 | 4.0E-93 | 7705398 | NT | Homo sapiens tumor antigen SLP-8p (HCC8), mRNA |
| 5760 | 18952 | 32255 | 5.01 | 4.0E-93 | T46864.1 | EST_HUMAN | yb94c12.r1 Stratagene liver (#937224) Homo sapiens cDNA clone IMAGE:78838 5' similar to similar to SP:A44391 A44391 SERUM RESPONSE ELEMENT-BINDING PROTEIN SRE-ZBP - HUMAN ; |
| 11398 | 24459 | 38123 | 10.47 | 4.0E-93 | AV692051.1 | EST_HUMAN | AV692051 GKC Homo sapiens cDNA clone GKCDRF07 5' |
| 3742 | 16903 | 29906 | 12.26 | 3.0E-93 | BF690630.1 | EST_HUMAN | 602246554F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4332036 5' |
| 3742 | 16903 | 29907 | 12.26 | 3.0E-93 | BF690630.1 | EST_HUMAN | 602246554F1 NIH_MGC_62 Homo sapiens cDNA clone IMAGE:4332036 5' |
| 4350 | 17493 |  | 2.6 | 3.0E-93 | AF225896.1 | NT | Homo sapiens tensin mRNA, complete cds |
| 6693 | 19851 | 33242 | 1.31 | 3.0E-93 | 11426182 | NT | Homo sapiens GCN5 (general control of amino-acid synthesis, yeast, homolog)-like 2 (GCN5L2), mRNA |
| 11040 | 24119 | 37752 | 2.86 | 3.0E-93 | AI824829.1 | EST_HUMAN | wb02d05.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2304489 3' |
| 195 | 13418 | 26447 | 5.59 | 2.0E-93 | AB015610.1 | NT | Chlorocebus aethiops mRNA for ribosomal protein S4X, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 195 | 13418 | 26448 | 5.59 | 2.0E-93 | AB015610.1 | NT | Chlorocebus aethiops mRNA for ribosomal protein S4X, complete cds |
| 333 | 13547 | 26578 | 13.77 | 2.0E-93 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 334 | 13547 | 26578 | 6.74 | 2.0E-93 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 1646 | 14799 | 27884 | 3.9 | 2.0E-93 | AF225896.1 | NT | Homo sapiens tensin mRNA, complete cds |
| 2199 | 15334 | 28461 | 2.23 | 2.0E-93 | U40763.1 | NT | Human Clk-associated RS cyclophilin CARS-Cyp mRNA, complete cds |
| 2555 | 15680 | 28805 | 1.02 | 2.0E-93 | BE252982.1 | EST_HUMAN | 601117586F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3358220 5' |
| 5254 | 18374 | 31340 | 1.19 | 2.0E-93 | BE253201.1 | EST_HUMAN | 601116810F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3357243 5' |
| 5533 | 18730 | 31746 | 5.08 | 2.0E-93 | AW964385.1 | EST_HUMAN | EST376458 MAGE resequences, MAGH Homo sapiens cDNA |
| 5544 | 18741 | 31775 | 0.7 | 2.0E-93 | 4758153 | NT | Homo sapiens deafness, autosomal dominant 5 (DFNA5), mRNA |
| 5660 | 18854 |  | 0.64 | 2.0E-93 | BF351459.1 | EST_HUMAN | QV3-HT0513-290300-126-h04 HT0513 Homo sapiens cDNA |
| 5754 | 18946 | 32248 | 1.08 | 2.0E-93 | 11430039 | NT | Homo sapiens hypothetical protein (LOC51318), mRNA |
| 5768 | 18960 | 32261 | 0.75 | 2.0E-93 | U74313.1 | EST_HUMAN | HSU74313 Human chromosome 14 Homo sapiens cDNA clone 1-86 |
| 6822 | 19975 |  | 1.2 | 2.0E-93 | AW502002.1 | EST_HUMAN | UI-HF-BN0-aks-g-09-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078329 5' |
| 11333 | 24396 | 38044 | 1.39 | 2.0E-93 | AV721846.1 | EST_HUMAN | AV721846 HTB Homo sapiens cDNA clone HTBAUB04 5' |
| 11333 | 24396 | 38045 | 1.39 | 2.0E-93 | AV721846.1 | EST_HUMAN | AV721846 HTB Homo sapiens cDNA clone HTBAUB04 5' |
| 12525 | 25358 |  | 1.78 | 2.0E-93 | AA126735.1 | EST_HUMAN | zl29c10.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:503346 3' |
| 12624 | 25420 |  | 3.25 | 2.0E-93 | L41825.1 | NT | Homo sapiens CYP17 gene, 5' end |
| 12930 | 25613 |  | 5.34 | 2.0E-93 | BF035327.1 | EST_HUMAN | 601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 105 | 13341 | 26368 | 1.38 | 1.0E-93 | AF238997.1 | NT | Homo sapiens CTR1 pseudogene |
| 105 | 13341 | 26369 | 1.38 | 1.0E-93 | AF238997.1 | NT | Homo sapiens CTR1 pseudogene |
| 531 | 13724 | 26750 | 7.76 | 1.0E-93 | 7657016 | NT | Homo sapiens hypothetical protein (DJ328E19.C1.1), mRNA |
| 613 | 13802 | 26822 | 3.32 | 1.0E-93 | AI146755.1 | EST_HUMAN | oy84b08.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:1672503 3' similar to TR:Q62384 Q62384 ZINC FINGER PROTEIN. ; |
| 895 | 14071 | 27136 | 3.43 | 1.0E-93 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 1194 | 14356 | 27414 | 0.6 | 1.0E-93 | 4503872 | NT | Homo sapiens glutamate decarboxylase 1 (brain, 67kD) (GAD1), transcript variant GAD67, mRNA |
| 1265 | 14422 | 27487 | 7.22 | 1.0E-93 | 8923270 | NT | Homo sapiens hypothetical protein FLJ20291 (FLJ20291), mRNA |
| 1265 | 14422 | 27488 | 7.22 | 1.0E-93 | 8923270 | NT | Homo sapiens hypothetical protein FLJ20291 (FLJ20291), mRNA |
| 1376 | 14531 | 27604 | 9.7 | 1.0E-93 | AF167706.1 | NT | Homo sapiens cysteine-rich repeat-containing protein S52 precursor, mRNA, complete cds |
| 2414 | 15544 | 28672 | 1.08 | 1.0E-93 | AF231981.1 | NT | Homo sapiens long chain polyunsaturated fatty acid elongation enzyme (HELO1) mRNA, complete cds |
| 2534 | 15659 | 28783 | 3.06 | 1.0E-93 | AF055066.1 | NT | Homo sapiens MHC class 1 region |
| 2576 | 15702 |  | 1.29 | 1.0E-93 | AL137200.1 | NT | Novel human gene mapping to chomosome 1 |
| 2883 | 14480 | 27546 | 1.32 | 1.0E-93 | BE297369.1 | EST_HUMAN | 601177686F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532965 5' |
| 2883 | 14480 | 27547 | 1.32 | 1.0E-93 | BE297369.1 | EST_HUMAN | 601177686F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532965 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3000 | 16176 | 29197 | 5.86 | 1.0E-93 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 3287 | 16461 |  | 1.23 | 1.0E-93 | AF231981.1 | NT | Homo sapiens long chain polyunsaturated fatty acid elongation enzyme (HELO1) mRNA, complete cds |
| 4549 | 17687 | 30668 | 3.28 | 1.0E-93 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 5348 | 18461 | 31426 | 0.92 | 1.0E-93 | AF123498.1 | NT | Homo sapiens estrogen receptor alpha (ESR1) gene, exon 6 |
| 5348 | 18461 | 31427 | 0.92 | 1.0E-93 | AF123498.1 | NT | Homo sapiens estrogen receptor alpha (ESR1) gene, exon 6 |
| 5684 | 18878 | 32167 | 2.39 | 1.0E-93 | U78509.1 | NT | Homo sapiens glucocorticoid receptor (GRL) gene, intron D, exon 5, and intron E |
| 5684 | 18878 | 32168 | 2.39 | 1.0E-93 | U78509.1 | NT | Homo sapiens glucocorticoid receptor (GRL) gene, intron D, exon 5, and intron E |
| 5885 | 19074 | 32383 | 1.2 | 1.0E-93 | AF227138.1 | NT | Homo sapiens candidate taste receptor T2R14 gene, complete cds |
| 6037 | 19220 | 32543 | 10.78 | 1.0E-93 | 4557792 | NT | Homo sapiens neurofibromin 1 (neurofibromatosis, von Recklinghausen disease, Watson disease) (NF1) mRNA |
| 6326 | 19498 | 32855 | 4.8 | 1.0E-93 | 7662241 | NT | Homo sapiens KIAA0672 gene product (KIAA0672), mRNA |
| 6931 | 20246 | 33679 | 1.94 | 1.0E-93 | 11431590 | NT | Homo sapiens protein kinase C, beta 1 (PRKCB1), mRNA |
| 7400 | 20478 | 33946 | 3.24 | 1.0E-93 | D42072.1 | NT | Human mRNA for NF1 N-isoform-exon11, complete cds |
| 8455 | 21536 | 35066 | 2.29 | 1.0E-93 | AB037832.1 | NT | Homo sapiens mRNA for KIAA1411 protein, partial cds |
| 8740 | 21819 | 35353 | 1.15 | 1.0E-93 | Y10183.1 | NT | H.sapiens mRNA for MEMD protein |
| 8850 | 21929 | 35468 | 1.14 | 1.0E-93 | AF182032.1 | NT | Homo sapiens protein kinase inhibitor gamma (PKIG) mRNA, complete cds |
| 9651 | 21094 | 34608 | 2.03 | 1.0E-93 | AB040918.1 | NT | Homo sapiens mRNA for KIAA1485 protein, partial cds |
| 9655 | 21098 | 34612 | 1.14 | 1.0E-93 | AF091395.1 | NT | Homo sapiens Trio isoform mRNA, complete cds |
| 9787 | 22827 | 36403 | 3.9 | 1.0E-93 | X13474.1 | NT | Human PreA4 gene for Alzheimer's disease A4 amyloid protein precursor (exon 9) |
| 9787 | 22827 | 36404 | 3.9 | 1.0E-93 | X13474.1 | NT | Human PreA4 gene for Alzheimer's disease A4 amyloid protein precursor (exon 9) |
| 9926 | 22966 | 36555 | 1.24 | 1.0E-93 | AL049801.1 | NT | Novel human gene mapping to chomosome 13, similar to rat RhoGAP |
| 10349 | 23384 | 36994 | 0.59 | 1.0E-93 | 11433646 | NT | Homo sapiens ryanodine receptor 3 (RYR3), mRNA |
| 12820 | 25547 |  | 1.62 | 1.0E-93 | AJ230125.1 | NT | Homo sapiens GGT1 gene, exon 1 |
| 12923 | 25608 |  | 3.71 | 1.0E-93 | 11417856 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2), mRNA |
| 13108 | 25723 | 31941 | 1.36 | 1.0E-93 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 13123 | 26173 |  | 1.42 | 1.0E-93 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 10819 | 23852 |  | 1.13 | 8.0E-94 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 4070 | 17226 | 30233 | 1.94 | 6.0E-94 | AF142482.1 | NT | Homo sapiens transcription enhancer factor-5 mRNA, complete cds |
| 5483 | 18682 | 31698 | 3.51 | 5.0E-94 | AB014512.1 | NT | Homo sapiens mRNA for KIAA0612 protein, partial cds |
| 5483 | 18682 | 31699 | 3.51 | 5.0E-94 | AB014512.1 | NT | Homo sapiens mRNA for KIAA0612 protein, partial cds |
| 6173 | 19349 | 32695 | 2.24 | 6.0E-94 | AA722434.1 | EST_HUMAN | zg87g06.s1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:409594 3' |
| 7150 | 20285 | 33728 | 1.45 | 5.0E-94 | AI015800.1 | EST_HUMAN | ot83d05.s1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1623369 3' |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8840 | 21919 | 35457 | 0.85 | 5.0E-94 | BF529115.1 | EST_HUMAN | 602042163F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4180023 5' |
| 11215 | 24284 | 37922 | 1.43 | 5.0E-94 | 11423962 | NT | Homo sapiens adenylate kinase 2 (AK2), mRNA |
| 11215 | 24284 | 37923 | 1.43 | 5.0E-94 | 11423962 | NT | Homo sapiens adenylate kinase 2 (AK2), mRNA |
| 12503 | 26177 | 31558 | 3.6 | 5.0E-94 | T89398.1 | EST_HUMAN | yd98b04.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:116239 3' |
| 1890 | 16034 | | 16.49 | 4.0E-94 | L05094.1 | NT | Homo sapiens ribosomal protein L27 mRNA, complete cds |
| 2723 | 15841 | 28952 | 0.99 | 4.0E-94 | 4506008 | NT | Homo sapiens protein phosphatase 1, regulatory subunit 10 (PPP1R10) mRNA |
| 3762 | 16923 | 29925 | 1.12 | 4.0E-94 | AW197851.1 | EST_HUMAN | xn89f12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2701679 3' |
| 3762 | 16923 | 29926 | 1.12 | 4.0E-94 | AW197851.1 | EST_HUMAN | xn89f12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2701679 3' |
| 4840 | 17973 | 30963 | 3.06 | 4.0E-94 | AI591312.1 | EST_HUMAN | tw11f10.x1 NCI_CGAP_Brn52 Homo sapiens cDNA clone IMAGE:2259403 3' similar to TR:Q15265 Q15265 PROTEIN TYROSINE PHOSPHATASE ; |
| 6597 | 19757 | 33144 | 1.48 | 4.0E-94 | 11440670 | NT | Homo sapiens solute carrier family 22 (organic cation transporter), member 1-like (SLC22A1L), mRNA |
| 6597 | 19757 | 33145 | 1.48 | 4.0E-94 | 11440670 | NT | Homo sapiens solute carrier family 22 (organic cation transporter), member 1-like (SLC22A1L), mRNA |
| 7052 | 20105 | | 0.9 | 4.0E-94 | L27386.1 | NT | Homo sapiens huntingtin (HD) gene, exon 37 |
| 626 | 13811 | 26833 | 1.76 | 3.0E-94 | AB022785.1 | NT | Homo sapiens ASH2L gene, complete cds, similar to Drosophila ash2 gene |
| 739 | 13921 | 26961 | 1.13 | 3.0E-94 | 4502506 | NT | Homo sapiens complement component 5 (C5) mRNA |
| 1779 | 14928 | 28021 | 12.9 | 3.0E-94 | AF167706.1 | NT | Homo sapiens cysteine-rich repeat-containing protein S52 precursor, mRNA, complete cds |
| 1779 | 14928 | 28022 | 12.9 | 3.0E-94 | AF167706.1 | NT | Homo sapiens cysteine-rich repeat-containing protein S52 precursor, mRNA, complete cds |
| 1813 | 14962 | 28055 | 3.18 | 3.0E-94 | 4557556 | NT | Homo sapiens E1A binding protein p300 (EP300) mRNA |
| 4306 | 17449 | 30435 | 0.67 | 3.0E-94 | AA464805.1 | EST_HUMAN | zw63g08.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:774782 5' |
| 4437 | 17577 | 30557 | 0.72 | 3.0E-94 | AA781836.1 | EST_HUMAN | ai59h06.s1 Soares_testis_NHT Homo sapiens cDNA clone 1376163 3' |
| 5798 | 18988 | 32292 | 3.21 | 3.0E-94 | 11496268 | NT | Homo sapiens zinc finger protein 277 (ZNF277), mRNA |
| 6279 | 19453 | 32801 | 1.13 | 3.0E-94 | AB011536.1 | NT | Homo sapiens mRNA for MEGF2, partial cds |
| 6581 | 19743 | 33125 | 3.84 | 3.0E-94 | 11526228 | NT | Homo sapiens chromosome 21 open reading frame 18 (C21ORF18), mRNA |
| 7978 | 21027 | 34541 | 0.63 | 3.0E-94 | 4826863 | NT | Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA |
| 8393 | 21474 | 35001 | 0.96 | 3.0E-94 | AF152309.1 | NT | Homo sapiens protocadherin alpha 13 (PCDH-alpha13) mRNA, complete cds |
| 8787 | 21866 | 35408 | 4.41 | 3.0E-94 | AB014579.1 | NT | Homo sapiens mRNA for KIAA0679 protein, partial cds |
| 9791 | 22831 | 36410 | 7.29 | 3.0E-94 | AF087942.1 | NT | Homo sapiens glycogenin-1L mRNA, complete cds |
| 11362 | 24423 | 38079 | 1.94 | 3.0E-94 | 4757821 | NT | Homo sapiens axonal transport of synaptic vesicles (ATSV) mRNA |
| 11976 | 24960 | 38662 | 2.11 | 3.0E-94 | U26711.1 | NT | Human cbl-b truncated form 1 lacking leucine zipper mRNA, complete cds |
| 9954 | 22993 | 36587 | 0.67 | 2.0E-94 | AI910393.1 | EST_HUMAN | wi30h11.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:2391813 3' |
| 9954 | 22993 | 36588 | 0.67 | 2.0E-94 | AI910393.1 | EST_HUMAN | wi30h11.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:2391813 3' |
| 153 | 13378 | 26410 | 3.07 | 1.0E-94 | BE295714.1 | EST_HUMAN | 601175762F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531038 5' |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3158 | 16333 | 29342 | 2.05 | 1.0E-94 | BE253433.1 | EST_HUMAN | 601111696F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3352559 5' |
| 3158 | 16333 | 29343 | 2.05 | 1.0E-94 | BE253433.1 | EST_HUMAN | 601111696F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3352559 5' |
| 4478 | 17618 | 30600 | 1.11 | 1.0E-94 | 9506692 | NT | Homo sapiens hypothetical protein (FLJ20746), mRNA |
| 6198 | 19373 | 32724 | 0.69 | 1.0E-94 | AE000269.1 | NT | Escherichia coli K-12 MG1655 section 159 of 400 of the complete genome |
| 6396 | 19565 | 32925 | 1.91 | 1.0E-94 | AL040518.1 | EST_HUMAN | DKFZp434G0314_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434G0314 5' |
| 6405 | 19574 | 32936 | 0.82 | 1.0E-94 | H08270.1 | EST_HUMAN | yl87f02.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:45053 5' |
| 6648 | 19807 | 33194 | 0.66 | 1.0E-94 | AV725992.1 | EST_HUMAN | AV725992 HTC Homo sapiens cDNA clone HTCBEF05 5' |
| 8304 | 21386 | 34908 | 0.8 | 1.0E-94 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 8304 | 21386 | 34909 | 0.8 | 1.0E-94 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 9456 | 22572 | 36138 | 2.17 | 1.0E-94 | 11428710 | NT | Homo sapiens paired box gene 5 (B-cell lineage specific activator protein) (PAX5), mRNA |
| 9990 | 23029 | 36620 | 1.35 | 1.0E-94 | BE780478.1 | EST_HUMAN | 601468748F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3872099 5' |
| 11321 | 24384 | 38028 | 3.11 | 1.0E-94 | U65590.1 | NT | Homo sapiens IL-1 receptor antagonist IL-1Ra (IL-1RN) gene, alternatively spliced forms, complete cds |
| 11597 | 24650 | 38334 | 1.88 | 1.0E-94 | AI272244.1 | EST_HUMAN | ap22e02.x1 Schiller oligodendroglioma Homo sapiens cDNA clone IMAGE:1956122 3' similar to TR:Q62845 Q62845 NEURAL CELL ADHESION PROTEIN BIG-2 PRECURSOR. ; |
| 12051 | 25032 | 38738 | 1.34 | 1.0E-94 | 11418871 | NT | Homo sapiens KIAA0164 gene product (KIAA0164), mRNA |
| 12639 | 13378 | 26410 | 2.02 | 1.0E-94 | BE295714.1 | EST_HUMAN | 601175762F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531038 5' |
| 12966 | 13378 | 26410 | 1.73 | 1.0E-94 | BE295714.1 | EST_HUMAN | 601175762F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3531038 5' |
| 1506 | 14659 | 27741 | 6.05 | 9.0E-95 | AF027302.1 | NT | Homo sapiens TNF-alpha stimulated ABC protein (ABC50) mRNA, complete cds |
| 3224 | 16398 | 29409 | 1.09 | 9.0E-95 | 7662027 | NT | Homo sapiens KIAA0255 gene product (KIAA0255), mRNA |
| 3224 | 16398 | 29410 | 1.09 | 9.0E-95 | 7662027 | NT | Homo sapiens KIAA0255 gene product (KIAA0255), mRNA |
| 5521 | 18718 | 31733 | 1.46 | 9.0E-95 | X82569.1 | NT | M.musculus glyT1 gene (exons 1c and 2) |
| 5521 | 18718 | 31734 | 1.46 | 9.0E-95 | X82569.1 | NT | M.musculus glyT1 gene (exons 1c and 2) |
| 8446 | 21527 | 35054 | 1.58 | 9.0E-95 | AF274753.1 | NT | Homo sapiens progressive ankylosis-like protein (ANK) mRNA, complete cds |
| 149 | 13374 | 26407 | 2.9 | 8.0E-95 | AF154830.1 | NT | Homo sapiens carbamyl phosphate synthetase I mRNA, complete cds |
| 4658 | 17794 | 30779 | 1.68 | 8.0E-95 | AI700998.1 | EST_HUMAN | we09e04.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2340606 3' similar to gb:K00558 TUBULIN ALPHA-1 CHAIN (HUMAN); |
| 4658 | 17794 | 30780 | 1.68 | 8.0E-95 | AI700998.1 | EST_HUMAN | we09e04.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2340606 3' similar to gb:K00558 TUBULIN ALPHA-1 CHAIN (HUMAN); |
| 7087 | 20181 | 33605 | 0.73 | 8.0E-95 | 11419376 | NT | Homo sapiens KIAA0193 gene product (KIAA0193), mRNA |
| 7390 | 20468 | 33934 | 1.4 | 8.0E-95 | 11426529 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, non-ATPase, 11 (PSMD11), mRNA |
| 7390 | 20468 | 33935 | 1.4 | 8.0E-95 | 11426529 | NT | Homo sapiens proteasome (prosome, macropain) 26S subunit, non-ATPase, 11 (PSMD11), mRNA |
| 8391 | 21472 | 34998 | 2.08 | 8.0E-95 | AF032897.1 | NT | Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds |
| 9565 | 22707 | 36273 | 1.98 | 8.0E-95 | 11420944 | NT | Homo sapiens KIAA0255 gene product (KIAA0255), mRNA |

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## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9565 | 22707 | 36274 | 1.98 | 8.0E-95 | 11420944 | NT | Homo sapiens KIAA0255 gene product (KIAA0255), mRNA |
| 10053 | 23091 | 36693 | 2.45 | 8.0E-95 | 5174644 | NT | Homo sapiens proline dehydrogenase (proline oxidase) (PRODH) mRNA |
| 10083 | 23121 | | 2.92 | 8.0E-95 | AB037816.1 | NT | Homo sapiens mRNA for KIAA1395 protein, partial cds |
| 10440 | 23475 | 37079 | 0.81 | 8.0E-95 | 9845523 | NT | Homo sapiens early growth response 2 (Krox-20 (Drosophila) homolog) (EGR2), mRNA |
| 10953 | 24035 | 37670 | 1.59 | 8.0E-95 | AF112152.1 | NT | Homo sapiens developmental arteries and neural crest EGF-like protein mRNA, complete cds |
| 11773 | 24765 | 38461 | 1.72 | 8.0E-95 | 10864024 | NT | Homo sapiens HCF-binding transcription factor Zhangfei (ZF), mRNA |
| 11982 | 24967 | 38669 | 1.32 | 8.0E-95 | 7019572 | NT | Homo sapiens zinedin (ZIN), mRNA |
| 11982 | 24967 | 38670 | 1.32 | 8.0E-95 | 7019572 | NT | Homo sapiens zinedin (ZIN), mRNA |
| 12887 | 25588 | | 17.21 | 8.0E-95 | AA629056.1 | EST_HUMAN | zu84b01.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:744649 3' similar to contains L1.t1 L1 repetitive element ; |
| 286 | 13504 | 26537 | 6.07 | 7.0E-95 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 286 | 13504 | 26538 | 6.07 | 7.0E-95 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 2519 | 15645 | 28767 | 1.37 | 7.0E-95 | M75973.1 | NT | Human hepatocyte growth factor gene, exon 8 |
| 2519 | 15645 | 28768 | 1.37 | 7.0E-95 | M75973.1 | NT | Human hepatocyte growth factor gene, exon 8 |
| 4486 | 17626 | 30608 | 15.92 | 7.0E-95 | M95708.1 | NT | Homo sapiens Ly-6-like protein (CD59) mRNA, complete cds |
| 4535 | 17673 | | 1.09 | 7.0E-95 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 9418 | 22492 | 36058 | 0.62 | 4.0E-95 | BE439625.1 | EST_HUMAN | HTM1-288F HTM1 Homo sapiens cDNA |
| 215 | 13438 | 26468 | 0.82 | 3.0E-95 | AV648361.1 | EST_HUMAN | AV648361 GLC Homo sapiens cDNA clone GLCBIF01 3' |
| 5558 | 18756 | 31794 | 1.52 | 3.0E-95 | BF526041.1 | EST_HUMAN | 602071146F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4214147 5' |
| 5791 | 25811 | 32285 | 0.94 | 3.0E-95 | 4503354 | NT | Homo sapiens dedicator of cyto-kinesis 1 (DOCK1) mRNA |
| 7315 | 20397 | 33859 | 0.73 | 3.0E-95 | AA412321.1 | EST_HUMAN | zt97d01.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:730273 5' |
| 7315 | 20397 | 33860 | 0.73 | 3.0E-95 | AA412321.1 | EST_HUMAN | zt97d01.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:730273 5' |
| 7525 | 20598 | 34071 | 2.01 | 3.0E-95 | AW958121.1 | EST_HUMAN | EST370191 MAGE resequences, MAGE Homo sapiens cDNA |
| 7525 | 20598 | 34072 | 2.01 | 3.0E-95 | AW958121.1 | EST_HUMAN | EST370191 MAGE resequences, MAGE Homo sapiens cDNA |
| 9555 | 22620 | 36190 | 1.62 | 3.0E-95 | 7662289 | NT | Homo sapiens KIAA0763 gene product (KIAA0763), mRNA |
| 9555 | 22620 | 36191 | 1.62 | 3.0E-95 | 7662289 | NT | Homo sapiens KIAA0763 gene product (KIAA0763), mRNA |
| 9948 | 22987 | 36581 | 0.86 | 3.0E-95 | BF213446.1 | EST_HUMAN | 601845212F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4070451 5' |
| 1676 | 14828 | 27911 | 3.52 | 2.0E-95 | 7662027 | NT | Homo sapiens KIAA0255 gene product (KIAA0255), mRNA |
| 1676 | 14828 | 27912 | 3.52 | 2.0E-95 | 7662027 | NT | Homo sapiens KIAA0255 gene product (KIAA0255), mRNA |
| 1995 | 15136 | 28242 | 73.27 | 2.0E-95 | 4507512 | NT | Homo sapiens tissue inhibitor of metalloproteinase 3 (Sorsby fundus dystrophy, pseudoinflammatory) (TIMP3) mRNA |
| 1998 | 15139 | 28246 | 3.97 | 2.0E-95 | BE393873.1 | EST_HUMAN | 601312161F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3658862 5' |
| 2497 | 15624 | 28743 | 1.5 | 2.0E-95 | 5453665 | NT | Homo sapiens G protein-coupled receptor 19 (GPR19) mRNA |
| 2497 | 15624 | 28744 | 1.5 | 2.0E-95 | 5453665 | NT | Homo sapiens G protein-coupled receptor 19 (GPR19) mRNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2536 | 15661 | 28784 | 3.62 | 2.0E-95 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 2582 | 15707 | 28826 | 1.34 | 2.0E-95 | 4758423 | NT | Homo sapiens glycine cleavage system protein H (aminomethyl carrier) (GCSH) mRNA |
| 2662 | 15784 | | 0.99 | 2.0E-95 | R16245.1 | EST_HUMAN | ya49d08.s1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:53393 3' |
| 3226 | 16400 | 29412 | 2.1 | 2.0E-95 | AF015452.1 | NT | Homo sapiens Usurpin-gamma mRNA, complete cds |
| 3655 | 16818 | 29829 | 3.6 | 2.0E-95 | 7705900 | NT | Homo sapiens unconventional myosin-15 (LOC51168), mRNA |
| 3655 | 16818 | 29830 | 3.6 | 2.0E-95 | 7705900 | NT | Homo sapiens unconventional myosin-15 (LOC51168), mRNA |
| 3706 | 16867 | 29870 | 0.81 | 2.0E-95 | AB037807.1 | NT | Homo sapiens mRNA for KIAA1386 protein, partial cds |
| 3844 | 17004 | 30006 | 0.62 | 2.0E-95 | AI290264.1 | EST_HUMAN | qm01c02.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1880546 3' similar to WP:T23G7.4 CE03705 ; |
| 4481 | 17621 | 30602 | 1.36 | 2.0E-95 | 7657185 | NT | Homo sapiens hypothetical protein (HS322B1A), mRNA |
| 5151 | 18273 | 31242 | 3.5 | 2.0E-95 | 7661979 | NT | Homo sapiens KIAA0187 gene product (KIAA0187), mRNA |
| 5230 | 18352 | 31321 | 0.99 | 2.0E-95 | AF109907.1 | NT | Homo sapiens S164 gene, partial cds; PS1 and hypothetical protein genes, complete cds; and S171 gene, partial cds |
| 5597 | 18792 | 31840 | 4.12 | 2.0E-95 | 7705764 | NT | Homo sapiens CGI-48 protein (LOC51096), mRNA |
| 5597 | 18792 | 31841 | 4.12 | 2.0E-95 | 7705764 | NT | Homo sapiens CGI-48 protein (LOC51096), mRNA |
| 5815 | 19005 | 32310 | 1.24 | 2.0E-95 | 11225608 | NT | Homo sapiens angiotensin I converting enzyme (peptidyl-dipeptidase A) 2 (ACE2), mRNA |
| 5816 | 19005 | 32311 | 1.24 | 2.0E-95 | 11225608 | NT | Homo sapiens angiotensin I converting enzyme (peptidyl-dipeptidase A) 2 (ACE2), mRNA |
| 5855 | 19045 | 32352 | 0.63 | 2.0E-95 | 11525883 | NT | Homo sapiens membrane protein, palmitoylated 3 (MAGUK p55 subfamily member 3) (MPP3), mRNA |
| 6270 | 19444 | 32793 | 3.86 | 2.0E-95 | M59724.1 | NT | Human muscle-type phosphofructokinase (PFK-M) gene, exon 7 |
| 6579 | 19741 | 33122 | 0.9 | 2.0E-95 | 11427182 | NT | Homo sapiens transcription factor 2, hepatic; LF-B3; variant hepatic nuclear factor (TCF2), mRNA |
| 6579 | 19741 | 33123 | 0.9 | 2.0E-95 | 11427182 | NT | Homo sapiens transcription factor 2, hepatic; LF-B3; variant hepatic nuclear factor (TCF2), mRNA |
| 6700 | 19858 | 33248 | 3.25 | 2.0E-95 | AF257737.1 | NT | Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds |
| 6903 | 20218 | 33647 | 1.47 | 2.0E-95 | 11435773 | NT | Homo sapiens huntingtin (Huntington disease) (HD), mRNA |
| 9343 | 22419 | 35973 | 1.48 | 2.0E-95 | 11421795 | NT | Homo sapiens ribophorin II (RPN2), mRNA |
| 10592 | 23627 | 37236 | 0.56 | 2.0E-95 | 11434330 | NT | Homo sapiens KIAA1065 protein (KIAA1065), mRNA |
| 10962 | 24043 | 37678 | 1.98 | 2.0E-95 | 4757853 | NT | Homo sapiens bone morphogenetic protein receptor, type IA (BMPR1A) mRNA |
| 11138 | 24210 | 37836 | 1.35 | 2.0E-95 | 7661993 | NT | Homo sapiens Ste20-related serine/threonine kinase (KIAA0204), mRNA |
| 12002 | 24987 | 38691 | 1.69 | 2.0E-95 | 7662289 | NT | Homo sapiens KIAA0763 gene product (KIAA0763), mRNA |
| 12002 | 24987 | 38692 | 1.69 | 2.0E-95 | 7662289 | NT | Homo sapiens KIAA0763 gene product (KIAA0763), mRNA |
| 12103 | 25083 | | 1.57 | 2.0E-95 | AF161420.1 | NT | Homo sapiens HSPC302 mRNA, partial cds |
| 12608 | 25407 | 32047 | 2.31 | 2.0E-95 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |

## Table 4
## Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 12721 | 25480 | | 1.3 | 2.0E-95 | 11417860 | NT | Homo sapiens hypothetical protein (HS322B1A), mRNA |
| 13067 | 25698 | 31956 | 7.4 | 2.0E-95 | 11418164 | NT | Homo sapiens adenylosuccinate lyase (ADSL), mRNA |
| 5732 | 18925 | 32219 | 8.06 | 1.0E-95 | AA284651.1 | EST_HUMAN | zt23h04.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:714007 5' similar to TR:G1067084 G1067084 F55H2.6 ; |
| 5732 | 18925 | 32220 | 8.06 | 1.0E-95 | AA284651.1 | EST_HUMAN | zt23h04.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:714007 5' similar to TR:G1067084 G1067084 F55H2.6 ; |
| 7683 | 20748 | 34229 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | RC6-FN0019-290600-011-G11 FN0019 Homo sapiens cDNA |
| 7683 | 20748 | 34230 | 4.11 | 1.0E-95 | BF370000.1 | EST_HUMAN | RC6-FN0019-290600-011-G11 FN0019 Homo sapiens cDNA |
| 9663 | 22625 | 36197 | 0.45 | 1.0E-95 | R17806.1 | EST_HUMAN | yg09b06.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:31763 5' |
| 8388 | 21469 | 34996 | 1.56 | 9.0E-96 | BE897259.1 | EST_HUMAN | 601437232F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3922423 5' |
| 455 | 16012 | 26687 | 0.88 | 8.0E-96 | BE907607.1 | EST_HUMAN | 601497608F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3899761 5' |
| 455 | 16012 | 26688 | 0.88 | 8.0E-96 | BE907607.1 | EST_HUMAN | 601497608F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3899761 5' |
| 5628 | 18822 | | 2.8 | 8.0E-96 | AW836047.1 | EST_HUMAN | PM0-LT0019-090300-002-d09 LT0019 Homo sapiens cDNA |
| 4018 | 17175 | 30183 | 1.25 | 7.0E-96 | AF231920.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 2334 | 16465 | 28600 | 2.48 | 6.0E-96 | BE171984.1 | EST_HUMAN | MR0-HT0559-250200-002-d07 HT0559 Homo sapiens cDNA |
| 3394 | 16564 | 29579 | 0.71 | 6.0E-96 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 3571 | 16736 | 29751 | 10.25 | 6.0E-96 | M26873.1 | NT | Human glyceraldehyde-3-phosphate dehydrogenase pseudogene 3'end |
| 11839 | 24828 | 38517 | 2.41 | 6.0E-96 | 7662289 | NT | Homo sapiens KIAA0763 gene product (KIAA0763), mRNA |
| 11839 | 24828 | 38518 | 2.41 | 6.0E-96 | 7662289 | NT | Homo sapiens KIAA0763 gene product (KIAA0763), mRNA |
| 11891 | 24879 | 38576 | 1.94 | 6.0E-96 | 8923939 | NT | Homo sapiens myosin, heavy polypeptide 2, skeletal muscle, adult (MYH2), mRNA |
| 12064 | 25045 | 38753 | 1.32 | 6.0E-96 | 7662289 | NT | Homo sapiens KIAA0763 gene product (KIAA0763), mRNA |
| 12064 | 25045 | 38754 | 1.32 | 6.0E-96 | 7662289 | NT | Homo sapiens KIAA0763 gene product (KIAA0763), mRNA |
| 330 | 13544 | 26574 | 3.55 | 5.0E-96 | AB032998.1 | NT | Homo sapiens mRNA for KIAA1172 protein, partial cds |
| 865 | 14041 | 27104 | 3.4 | 5.0E-96 | AB032998.1 | NT | Homo sapiens mRNA for KIAA1172 protein, partial cds |
| 865 | 14041 | 27105 | 3.4 | 5.0E-96 | AB032998.1 | NT | Homo sapiens mRNA for KIAA1172 protein, partial cds |
| 2684 | 15804 | | 1.72 | 5.0E-96 | 11416767 | NT | Homo sapiens phosphodiesterase 6A, cGMP-specific, rod, alpha (PDE6A), mRNA |
| 3092 | 16268 | 29284 | 0.71 | 5.0E-96 | 6912735 | NT | Homo sapiens transient receptor potential channel 5 (TRPC5), mRNA |
| 5024 | 18153 | | 1.69 | 5.0E-96 | X60812.1 | NT | H.sapiens DNA for monoamine oxidase type A (7) (partial) |
| 5296 | 18414 | 31381 | 0.79 | 5.0E-96 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 6788 | 19943 | 33341 | 1.1 | 5.0E-96 | AF149773.1 | NT | Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3 |
| 6851 | 20004 | 33413 | 0.58 | 5.0E-96 | AJ277557.1 | NT | Homo sapiens dNT-2 gene for mitochondrial 5'(3')-deoxyribonucleotidase (dNT-2 gene), exons 1-5 |
| 6921 | 20236 | 33669 | 3.68 | 5.0E-96 | 11424399 | NT | Homo sapiens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA |
| 6921 | 20236 | 33670 | 3.68 | 5.0E-96 | 11424399 | NT | Homo sapiens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7163 | 20296 | 33740 | 0.91 | 5.0E-96 | AB023177.1 | NT | Homo sapiens mRNA for KIAA0960 protein, partial cds |
| 7684 | 20749 | 34231 | 0.76 | 5.0E-96 | AB024334.1 | NT | Homo sapiens mRNA for 14-3-3gamma, complete cds |
| 8297 | 21379 | 34900 | 1.87 | 5.0E-96 | M68347.1 | NT | Human type IV collagenase (CLG4B) gene, exon 5 |
| 8297 | 21379 | 34901 | 1.87 | 5.0E-96 | M68347.1 | NT | Human type IV collagenase (CLG4B) gene, exon 5 |
| 12083 | 25063 | 38769 | 1.33 | 5.0E-96 | 7661973 | NT | Homo sapiens KIAA0175 gene product (KIAA0175), mRNA |
| 4308 | 17451 |  | 15.95 | 3.0E-96 | H68656.1 | EST_HUMAN | yr87h12.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:212327 5' |
| 428 | 13623 |  | 5.76 | 2.0E-96 | 4503098 | NT | Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA |
| 766 | 13947 | 26994 | 1.1 | 2.0E-96 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 1834 | 14981 | 28079 | 1.03 | 2.0E-96 | 7706205 | NT | Homo sapiens CGI-201 protein (LOC51340), mRNA |
| 4880 | 18011 | 30995 | 1.56 | 2.0E-96 | BE148074.1 | EST_HUMAN | RC3-HT0230-040500-110-g02 HT0230 Homo sapiens cDNA |
| 7620 | 20690 | 34165 | 0.59 | 2.0E-96 | BF369731.1 | EST_HUMAN | QV4-GN0120-250900-427-b12 GN0120 Homo sapiens cDNA |
| 7620 | 20690 | 34166 | 0.59 | 2.0E-96 | BF369731.1 | EST_HUMAN | QV4-GN0120-250900-427-b12 GN0120 Homo sapiens cDNA |
| 9181 | 22259 |  | 4.9 | 2.0E-96 | AV689461.1 | EST_HUMAN | AV689461 GKC Homo sapiens cDNA clone GKCFMD07 5' |
| 12288 | 25214 |  | 2.54 | 2.0E-96 | AW249440.1 | EST_HUMAN | 2819361.5prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2819361 5' |
| 638 | 13823 | 26845 | 0.86 | 1.0E-96 | 4826863 | NT | Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA |
| 638 | 13823 | 26846 | 0.86 | 1.0E-96 | 4826863 | NT | Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA |
| 688 | 13872 | 26905 | 3.08 | 1.0E-96 | Y18890.1 | NT | Human endogenous retrovirus type K (HERV-K), gag, pol and env genes |
| 1822 | 14971 | 28063 | 9.97 | 1.0E-96 | AW955054.1 | EST_HUMAN | EST367124 MAGE resequences, MAGC Homo sapiens cDNA |
| 1822 | 14971 | 28064 | 9.97 | 1.0E-96 | AW955054.1 | EST_HUMAN | EST367124 MAGE resequences, MAGC Homo sapiens cDNA |
| 5331 | 18444 |  | 1.59 | 1.0E-96 | 5453913 | NT | Homo sapiens phospholipid transfer protein (PLTP) mRNA |
| 7105 | 18532 | 31487 | 1.19 | 1.0E-96 | 6912735 | NT | Homo sapiens transient receptor potential channel 5 (TRPC5), mRNA |
| 7194 | 20059 | 33470 | 0.71 | 1.0E-96 | 6912455 | NT | Homo sapiens guanine nucleotide exchange factor for Rap1 (KIAA0277), mRNA |
| 8407 | 21488 | 35017 | 0.9 | 1.0E-96 | 7661803 | NT | Homo sapiens HSPC144 protein (HSPC144), mRNA |
| 8407 | 21488 | 35018 | 0.9 | 1.0E-96 | 7661803 | NT | Homo sapiens HSPC144 protein (HSPC144), mRNA |
| 8913 | 21992 | 35531 | 21.44 | 1.0E-96 | 11419429 | NT | Homo sapiens similar to ectonucleotide pyrophosphatase/phosphodiesterase 3 (H. sapiens) (LOC63214), mRNA |
| 9051 | 22130 | 35674 | 2.22 | 1.0E-96 | AF274863.1 | NT | Homo sapiens secretory pathway component Sec31B-1 mRNA, alternatively spliced, complete cds |
| 10362 | 23397 | 37007 | 0.68 | 1.0E-96 | AB033116.1 | NT | Homo sapiens mRNA for KIAA1290 protein, partial cds |
| 10362 | 23397 | 37008 | 0.68 | 1.0E-96 | AB033116.1 | NT | Homo sapiens mRNA for KIAA1290 protein, partial cds |
| 12274 | 13823 | 26845 | 3.29 | 1.0E-96 | 4826863 | NT | Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA |
| 12274 | 13823 | 26846 | 3.29 | 1.0E-96 | 4826863 | NT | Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA |
| 3405 | 16575 | 29590 | 0.72 | 6.0E-97 | BF245240.1 | EST_HUMAN | 601863712F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4081202 5' |
| 7730 | 20792 |  | 3.4 | 6.0E-97 | BE141849.1 | EST_HUMAN | IL5-HT0117-011099-004-D07 HT0117 Homo sapiens cDNA |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9134 | 22213 | 35757 | 0.75 | 6.0E-97 | BE898012.1 | EST_HUMAN | 601440317F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3925133 5' |
| 9134 | 22213 | 35758 | 0.75 | 6.0E-97 | BE898012.1 | EST_HUMAN | 601440317F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3925133 5' |
| 10821 | 23854 | 37475 | 0.65 | 6.0E-97 | AA320332.1 | EST_HUMAN | EST22672 Adipose tissue, white II Homo sapiens cDNA 5' end |
| 10821 | 23854 | 37476 | 0.65 | 6.0E-97 | AA320332.1 | EST_HUMAN | EST22672 Adipose tissue, white II Homo sapiens cDNA 5' end |
| 11692 | 24690 | 38381 | 2.42 | 6.0E-97 | X15804.1 | NT | Human mRNA for alpha-actinin |
| 8204 | 21286 | 34809 | 1.73 | 5.0E-97 | AL043314.2 | EST_HUMAN | DKFZp434N0323_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N0323 5' |
| 8336 | 21417 | 34943 | 11.21 | 5.0E-97 | AA418026.1 | EST_HUMAN | zv97e12.s1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:767758 3' similar to TR:G1304125 G1304125 PMS4 MRNA ; |
| 9877 | 22917 | 36502 | 3.12 | 5.0E-97 | BF154912.1 | EST_HUMAN | RC0-BT0812-250900-032-e09 BT0812 Homo sapiens cDNA |
| 11840 | 24829 | 38519 | 1.68 | 5.0E-97 | BE148597.1 | EST_HUMAN | MR0-HT0241-150500-010-b02 HT0241 Homo sapiens cDNA |
| 11840 | 24829 | 38520 | 1.68 | 5.0E-97 | BE148597.1 | EST_HUMAN | MR0-HT0241-150500-010-b02 HT0241 Homo sapiens cDNA |
| 962 | 14135 | 27196 | 2.13 | 4.0E-97 | BE004436.1 | EST_HUMAN | CM0-BN0106-170300-293-e06 BN0106 Homo sapiens cDNA |
| 1959 | 15102 | 28202 | 1.41 | 4.0E-97 | 5453672 | NT | Homo sapiens brefeldin A-inhibited guanine nucleotide-exchange protein 2 (BIG2), mRNA |
| 5683 | 18877 | 32166 | 0.92 | 4.0E-97 | 4557326 | NT | Homo sapiens apolipoprotein H (beta-2-glycoprotein I) (APOH) mRNA |
| 6962 | 20190 | 33615 | 6.47 | 4.0E-97 | Y11339.2 | NT | Homo sapiens mRNA for GalNAc alpha-2, 6-sialyltransferase I, long form |
| 6962 | 20190 | 33616 | 6.47 | 4.0E-97 | Y11339.2 | NT | Homo sapiens mRNA for GalNAc alpha-2, 6-sialyltransferase I, long form |
| 7161 | 20294 | 33737 | 1.09 | 4.0E-97 | 7710125 | NT | Homo sapiens ligase III, DNA, ATP-dependent (LIG3), transcript variant alpha, mRNA |
| 7214 | 20079 | 33492 | 0.92 | 4.0E-97 | 11422155 | NT | Homo sapiens cystic fibrosis transmembrane conductance regulator, ATP-binding cassette (sub-family C, member 7) (CFTR), mRNA |
| 8329 | 21411 | 34937 | 1.06 | 4.0E-97 | 4557708 | NT | Homo sapiens laminin, alpha 2 (merosin, congenital muscular dystrophy) (LAMA2) mRNA |
| 8553 | 21634 | 35171 | 1.43 | 4.0E-97 | 11421793 | NT | Homo sapiens v-src avian sarcoma (Schmidt-Ruppin A-2) viral oncogene homolog (SRC), mRNA |
| 8779 | 21858 | 35401 | 0.51 | 4.0E-97 | 11431060 | NT | Homo sapiens N-myc (and STAT) interactor (NMI), mRNA |
| 8820 | 21899 | 35438 | 0.82 | 4.0E-97 | 11423233 | NT | Homo sapiens cytochrome P450, subfamily IVB, polypeptide 1 (CYP4B1), mRNA |
| 9449 | 22565 | 36128 | 1.06 | 4.0E-97 | AB011166.1 | NT | Homo sapiens mRNA for KIAA0594 protein, partial cds |
| 9449 | 22565 | 36129 | 1.06 | 4.0E-97 | AB011166.1 | NT | Homo sapiens mRNA for KIAA0594 protein, partial cds |
| 10652 | 23686 | 37296 | 0.55 | 4.0E-97 | 11431060 | NT | Homo sapiens N-myc (and STAT) interactor (NMI), mRNA |
| 11435 | 24496 | 38162 | 1.99 | 4.0E-97 | 11863122 | NT | Homo sapiens AXL receptor tyrosine kinase (AXL), transcript variant 1, mRNA |
| 11435 | 24496 | 38163 | 1.99 | 4.0E-97 | 11863122 | NT | Homo sapiens AXL receptor tyrosine kinase (AXL), transcript variant 1, mRNA |
| 11719 | 23905 | 37528 | 4.51 | 4.0E-97 | AB042557.1 | NT | Homo sapiens mRNA, similar to rat myomegalin, complete cds |
| 12472 | 25325 |  | 5.26 | 4.0E-97 | 11418318 | NT | Homo sapiens G-2 and S-phase expressed 1 (GTSE1), mRNA |
| 253 | 13473 | 26504 | 1.58 | 3.0E-97 | AB032998.1 | NT | Homo sapiens mRNA for KIAA1172 protein, partial cds |
| 897 | 14073 | 27138 | 7.16 | 3.0E-97 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 897 | 14073 | 27139 | 7.16 | 3.0E-97 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 1473 | 16039 | 27712 | 1.94 | 3.0E-97 | 4758813 | NT | Homo sapiens N-myc (and STAT) interactor (NMI), mRNA |
| 2508 | 15998 | 28755 | 2.4 | 3.0E-97 | U36255.1 | NT | Human beta-prime-adaptin (BAM22) gene, exon 7 |
| 3333 | 16506 | 29523 | 0.96 | 3.0E-97 | 5174478 | NT | Homo sapiens pericentrin (PCNT) mRNA |
| 4902 | 18032 | 31021 | 22.23 | 1.0E-97 | 4503470 | NT | Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA |
| 6557 | 19719 | 33095 | 2.72 | 1.0E-97 | BE566486.1 | EST_HUMAN | 601339520F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3681821 5' |
| 7039 | 20092 | 33509 | 0.69 | 1.0E-97 | 5453881 | NT | Homo sapiens phosphorylase kinase, gamma 1 (muscle) (PHKG1) mRNA |
| 9966 | 23005 | 36600 | 1.02 | 1.0E-97 | R10887.1 | EST_HUMAN | yf38c08.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:129134 3' |
| 10946 | 24027 | 37663 | 2.84 | 1.0E-97 | 11427757 | NT | Homo sapiens KIAA0649 gene product (KIAA0649), mRNA |
| 10945 | 24027 | 37664 | 2.84 | 1.0E-97 | 11427757 | NT | Homo sapiens KIAA0649 gene product (KIAA0649), mRNA |
| 11589 | 24642 | 38324 | 1.38 | 1.0E-97 | AA553761.1 | EST_HUMAN | nk29g02.s1 NCI_CGAP_Co11 Homo sapiens cDNA clone IMAGE:1014962 3' |
| 11766 | 23942 | 37568 | 8.3 | 1.0E-97 | 11426272 | NT | Homo sapiens ribosomal protein S15 (RPS15), mRNA |
| 11756 | 23942 | 37569 | 8.3 | 1.0E-97 | 11426272 | NT | Homo sapiens ribosomal protein S15 (RPS15), mRNA |
| 924 | 14099 | 27163 | 2.34 | 9.0E-98 | BE090973.1 | EST_HUMAN | PM4-BT0724-010400-008-a12 BT0724 Homo sapiens cDNA |
| 1305 | 14461 | 27528 | 1.32 | 9.0E-98 | 8393092 | NT | Homo sapiens cat eye syndrome critical region gene 1 (CECR1), mRNA |
| 6432 | 19600 |  | 0.79 | 9.0E-98 | AJ250713.1 | NT | Homo sapiens CLDN12 gene for claudin-12 |
| 8020 | 21072 | 34583 | 4.13 | 9.0E-98 | AB046856.1 | NT | Homo sapiens mRNA for KIAA1636 protein, partial cds |
| 8020 | 21072 | 34584 | 4.13 | 9.0E-98 | AB046856.1 | NT | Homo sapiens mRNA for KIAA1636 protein, partial cds |
| 8109 | 21191 | 34711 | 5.62 | 9.0E-98 | 4758119 | NT | Homo sapiens death-associated protein (DAP), mRNA |
| 8109 | 21191 | 34712 | 5.62 | 9.0E-98 | 4758119 | NT | Homo sapiens death-associated protein (DAP), mRNA |
| 9316 | 22392 | 35943 | 1.78 | 9.0E-98 | X06989.1 | NT | Human mRNA for amyloid A4(751) protein |
| 9425 | 22499 | 36064 | 1.12 | 9.0E-98 | 11321580 | NT | Homo sapiens succinate-CoA ligase, GDP-forming, alpha subunit (SUCLG1), mRNA |
| 9492 | 22549 | 36112 | 1.6 | 9.0E-98 | AB037786.1 | NT | Homo sapiens mRNA for KIAA1365 protein, partial cds |
| 9540 | 22605 |  | 0.81 | 9.0E-98 | AF057726.1 | NT | Homo sapiens 17-beta-hydroxysteroid dehydrogenase IV (HSD17B4) gene, exon 8 |
| 9567 | 22709 | 36276 | 1.28 | 9.0E-98 | 4507070 | NT | Homo sapiens SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 3 (SMARCA3) mRNA |
| 9567 | 22709 | 36277 | 1.28 | 9.0E-98 | 4507070 | NT | Homo sapiens SWI/SNF related, matrix associated, actin dependent regulator of chromatin, subfamily a, member 3 (SMARCA3) mRNA |
| 10467 | 23502 | 37115 | 0.67 | 9.0E-98 | AF141325.2 | NT | Homo sapiens inositol polyphosphate 1-phosphatase (INPP1) gene, complete cds |
| 10575 | 23610 | 37215 | 0.5 | 9.0E-98 | 11431544 | NT | Homo sapiens protease-activated receptor 3 (PAR3), mRNA |
| 11253 | 24322 | 37962 | 2.62 | 9.0E-98 | AB023222.1 | NT | Homo sapiens mRNA for KIAA1005 protein, partial cds |
| 11253 | 24322 | 37963 | 2.62 | 9.0E-98 | AB023222.1 | NT | Homo sapiens mRNA for KIAA1005 protein, partial cds |
| 12487 | 14099 | 27163 | 4.97 | 9.0E-98 | BE090973.1 | EST_HUMAN | PM4-BT0724-010400-008-a12 BT0724 Homo sapiens cDNA |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1403 | 14557 | 27631 | 0.93 | 8.0E-98 | AB033768.1 | NT | Homo sapiens hPAD-colony10 mRNA for peptidylarginine deiminase type I, complete cds |
| 1591 | 14743 | 27825 | 1.1 | 8.0E-98 | 5031810 | NT | Homo sapiens IL2-inducible T-cell kinase (ITK), mRNA |
| 1591 | 14743 | 27826 | 1.1 | 8.0E-98 | 5031810 | NT | Homo sapiens IL2-inducible T-cell kinase (ITK), mRNA |
| 1765 | 14914 | 28009 | 2.79 | 8.0E-98 | AB017007.1 | NT | Homo sapiens PMS2L16 mRNA, partial cds |
| 1765 | 14914 | 28010 | 2.79 | 8.0E-98 | AB017007.1 | NT | Homo sapiens PMS2L16 mRNA, partial cds |
| 3896 | 17055 | 30055 | 6.45 | 8.0E-98 | J04469.1 | NT | Human mitochondrial creatine kinase (CKMT) gene, complete cds |
| 6207 | 19382 | 32732 | 0.96 | 5.0E-98 | BE885873.1 | EST_HUMAN | 601507503F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3909097 5' |
| 2247 | 15380 | 28508 | 1.35 | 3.0E-98 | AJ403124.1 | EST_HUMAN | AJ403124 3.4 (downregulated in larynx carcinoma) Homo sapiens cDNA clone I8 |
| 2673 | 15793 | 28910 | 2.1 | 3.0E-98 | AB014607.1 | NT | Homo sapiens mRNA for KIAA0707 protein, partial cds |
| 2807 | 15921 |  | 5.04 | 3.0E-98 | AA077498.1 | EST_HUMAN | 7B18H01 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B18H01 |
| 7085 | 20179 | 33602 | 1.99 | 3.0E-98 | 11419210 | NT | Homo sapiens activator of S phase kinase (ASK), mRNA |
| 7085 | 20179 | 33603 | 1.99 | 3.0E-98 | 11419210 | NT | Homo sapiens activator of S phase kinase (ASK), mRNA |
| 8951 | 22030 | 35571 | 4.07 | 3.0E-98 | H46698.1 | EST_HUMAN | yo17g09.r1 Soares adult brain N2b5HB55Y Homo sapiens cDNA clone IMAGE:178240 5' |
| 9497 | 22553 | 36115 | 0.54 | 3.0E-98 | 8922096 | NT | Homo sapiens uncharacterized bone marrow protein BM039 (BM039), mRNA |
| 10087 | 23125 | 36726 | 1.82 | 3.0E-98 | AJ403124.1 | EST_HUMAN | AJ403124 3.4 (downregulated in larynx carcinoma) Homo sapiens cDNA clone I8 |
| 10087 | 23125 | 36727 | 1.82 | 3.0E-98 | AJ403124.1 | EST_HUMAN | AJ403124 3.4 (downregulated in larynx carcinoma) Homo sapiens cDNA clone I8 |
| 10691 | 23724 | 37330 | 0.89 | 3.0E-98 | BE900454.1 | EST_HUMAN | 601673686F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3956517 5' |
| 11195 | 24264 | 37899 | 2.56 | 3.0E-98 | U59309.1 | NT | Human fumarase precursor (FH) mRNA, nuclear gene encoding mitochondrial protein, complete cds |
| 11819 | 24808 | 38604 | 2.22 | 3.0E-98 | AI169975.1 | EST_HUMAN | qb80h02.x1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:1706451 3' |
| 13138 | 25739 |  | 3.01 | 3.0E-98 | 11418177 | NT | Homo sapiens Ran GTPase activating protein 1 (RANGAP1), mRNA |
| 764 | 13935 | 26980 | 0.67 | 2.0E-98 | BE261694.1 | EST_HUMAN | 601149486F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3502245 5' |
| 2141 | 15277 | 28399 | 4.06 | 2.0E-98 | BE294281.1 | EST_HUMAN | 601172658F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3528134 5' |
| 2311 | 15443 | 28578 | 2.21 | 2.0E-98 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 4411 | 17553 | 30538 | 0.82 | 2.0E-98 | AF032897.1 | NT | Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds |
| 4459 | 17599 | 30577 | 4.23 | 2.0E-98 | 4758331 | NT | Homo sapiens fatty-acid-Coenzyme A ligase, long-chain 4 (FACL4) mRNA |
| 4948 | 18078 | 31052 | 1.39 | 2.0E-98 | AF218902.1 | NT | Homo sapiens attractin precursor (ATRN) gene, exon 16 |
| 4948 | 18078 | 31053 | 1.39 | 2.0E-98 | AF218902.1 | NT | Homo sapiens attractin precursor (ATRN) gene, exon 16 |
| 5492 | 18691 | 31708 | 4.76 | 2.0E-98 | 7706512 | NT | Homo sapiens PDZ domain-containing guanine nucleotide exchange factor I (LOC51735), mRNA |
| 6793 | 19948 | 33347 | 1.7 | 2.0E-98 | 4505798 | NT | Homo sapiens phosphatidylinositol 3-kinase, class 2, alpha polypeptide (PIK3C2A) mRNA |
| 7801 | 20857 | 34348 | 1.25 | 2.0E-98 | 11431271 | NT | Homo sapiens hypothetical protein FLJ10488 (FLJ10488), mRNA |
| 7801 | 20857 | 34349 | 1.25 | 2.0E-98 | 11431271 | NT | Homo sapiens hypothetical protein FLJ10488 (FLJ10488), mRNA |
| 8807 | 21886 | 35426 | 4.44 | 2.0E-98 | 11428813 | NT | Homo sapiens SH3-domain GRB2-like 2 (SH3GL2), mRNA |
| 8807 | 21886 | 35427 | 4.44 | 2.0E-98 | 11428813 | NT | Homo sapiens SH3-domain GRB2-like 2 (SH3GL2), mRNA |

Table 4
Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8889 | 21968 | 35503 | 0.8 | 2.0E-98 | L76666.1 | NT | Homo sapiens NKAT4b mRNA, complete cds |
| 8889 | 21968 | 35504 | 0.8 | 2.0E-98 | L76666.1 | NT | Homo sapiens NKAT4b mRNA, complete cds |
| 9737 | 22802 | 36376 | 1.56 | 2.0E-98 | X12664.1 | NT | H.sapiens arginase gene exon 3 (EC 3.5.3.1) |
| 10624 | 23658 |  | 1.65 | 2.0E-98 | 7705868 | NT | Homo sapiens AIM-1 protein (LOC51151), mRNA |
| 12136 | 25116 |  | 1.61 | 2.0E-98 | AB046813.1 | NT | Homo sapiens mRNA for KIAA1593 protein, partial cds |
| 12492 | 25340 | 32062 | 2.23 | 2.0E-98 | 11435947 | NT | Homo sapiens chromosome 12 open reading frame 3 (C12ORF3), mRNA |
| 418 | 13613 | 26653 | 27.52 | 1.0E-98 | AI862007.1 | EST_HUMAN | tw36b04.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2261743 3' similar to SW:RL2B_HUMAN P29316 60S RIBOSOMAL PROTEIN L23A. ; |
| 467 | 13662 | 26698 | 3.27 | 1.0E-98 | AW998611.1 | EST_HUMAN | PM0-BN0065-100300-001-c06 BN0065 Homo sapiens cDNA |
| 1840 | 14986 | 28086 | 26.16 | 1.0E-98 | N49818.1 | EST_HUMAN | yv23f05.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:243585 5' similar to PIR:S54204 S54204 ribosomal protein L29 - human ; |
| 5432 | 18632 | 31610 | 3.3 | 1.0E-98 | AA195854.1 | EST_HUMAN | zp98c09.r1 Stratagene muscle 937209 Homo sapiens cDNA clone IMAGE:628240 5' similar to TR:G806562 G806562 NEBULIN. ; |
| 5687 | 18881 | 32172 | 0.97 | 1.0E-98 | BE390627.1 | EST_HUMAN | 601284986F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3606692 5' |
| 5687 | 18881 | 32173 | 0.97 | 1.0E-98 | BE390627.1 | EST_HUMAN | 601284986F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3606692 5' |
| 9199 | 22277 | 35815 | 0.59 | 1.0E-98 | AF141349.1 | NT | Homo sapiens beta-tubulin mRNA, complete cds |
| 9199 | 22277 | 35816 | 0.59 | 1.0E-98 | AF141349.1 | NT | Homo sapiens beta-tubulin mRNA, complete cds |
| 5939 | 19125 | 32438 | 1.05 | 9.0E-99 | AI905004.1 | EST_HUMAN | QV-BT073-191298-012 BT073 Homo sapiens cDNA |
| 5939 | 19125 | 32439 | 1.05 | 9.0E-99 | AI905004.1 | EST_HUMAN | QV-BT073-191298-012 BT073 Homo sapiens cDNA |
| 6165 | 19341 | 32688 | 4.01 | 9.0E-99 | AW968635.1 | EST_HUMAN | EST380711 MAGE resequences, MAGJ Homo sapiens cDNA |
| 11384 | 24445 | 38105 | 1.85 | 9.0E-99 | AI479829.1 | EST_HUMAN | tm69h07.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2163421 3' similar to SW:BID_HUMAN P55957 BH3 INTERACTING DOMAIN DEATH AGONIST ; |
| 11384 | 24445 | 38106 | 1.85 | 9.0E-99 | AI479829.1 | EST_HUMAN | tm69h07.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2163421 3' similar to SW:BID_HUMAN P55957 BH3 INTERACTING DOMAIN DEATH AGONIST ; |
| 11700 | 24697 | 38389 | 1.72 | 9.0E-99 | AA134604.1 | EST_HUMAN | zn90d02.r1 Stratagene lung carcinoma 937218 Homo sapiens cDNA clone IMAGE:565443 5' similar to TR:G662994 G662994 GPI-ANCHORED PROTEIN P137. ; |
| 8924 | 22003 | 35542 | 1.19 | 8.0E-99 | 9635487 | NT | Human endogenous retrovirus, complete genome |
| 5956 | 19142 | 32458 | 9.25 | 7.0E-99 | AF035808.1 | NT | Homo sapiens oscillin (hLn) gene, exon 5 |
| 11909 | 24896 | 38599 | 1.91 | 7.0E-99 | AF001886.1 | NT | Homo sapiens NK-receptor (KIR-G2) gene, linker region exon |
| 484 | 13678 | 26713 | 0.72 | 6.0E-99 | U10991.1 | NT | Human G2 protein mRNA, partial cds |
| 2196 | 15331 | 28456 | 6.2 | 6.0E-99 | 11430555 | NT | Homo sapiens cysteine-rich repeat-containing protein S52 precursor, (LOC51232), mRNA |
| 2196 | 15331 | 28457 | 6.2 | 6.0E-99 | 11430555 | NT | Homo sapiens cysteine-rich repeat-containing protein S52 precursor, (LOC51232), mRNA |
| 3995 | 17152 | 30160 | 2.8 | 6.0E-99 | AW976364.1 | EST_HUMAN | EST388473 MAGE resequences, MAGN Homo sapiens cDNA |
| 4870 | 18003 | 30986 | 1.42 | 6.0E-99 | 4502660 | NT | Homo sapiens CD34 antigen (CD34) mRNA |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6732 | 19888 | 33280 | 0.94 | 6.0E-99 | 7706136 | NT | Homo sapiens GAP-like protein (LOC51306), mRNA |
| 6816 | 19969 | 33376 | 0.74 | 6.0E-99 | L43610.1 | NT | Homo sapiens polycystic kidney disease (PKD1) gene, exons 27-30 |
| 6816 | 19969 | 33377 | 0.74 | 6.0E-99 | L43610.1 | NT | Homo sapiens polycystic kidney disease (PKD1) gene, exons 27-30 |
| 8296 | 21378 | 34899 | 1.85 | 6.0E-99 | X99101.1 | NT | H.sapiens mRNA for estrogen receptor |
| 8314 | 21396 | 34921 | 0.59 | 6.0E-99 | 6601589 | NT | Homo sapiens ankyrin-like with transmembrane domains 1 (ANKTM1), mRNA |
| 8964 | 22043 | 35586 | 2.67 | 6.0E-99 | AB036429.1 | NT | Homo sapiens NDST4 mRNA for N-deacetylase/N-sulfotransferase 4, complete cds |
| 9064 | 22143 | 35688 | 7.6 | 6.0E-99 | AF080255.1 | NT | Homo sapiens lodestar protein mRNA, complete cds |
| 9064 | 22143 | 35689 | 7.6 | 6.0E-99 | AF080255.1 | NT | Homo sapiens lodestar protein mRNA, complete cds |
| 9123 | 22202 | 35744 | 0.59 | 6.0E-99 | 11431994 | NT | Homo sapiens inositol 1,4,5-triphosphate receptor, type 1 (ITPR1), mRNA |
| 9123 | 22202 | 35745 | 0.59 | 6.0E-99 | 11431994 | NT | Homo sapiens inositol 1,4,5-triphosphate receptor, type 1 (ITPR1), mRNA |
| 10958 | 24039 | 37674 | 3.15 | 6.0E-99 | 11526299 | NT | Homo sapiens BH3 interacting domain death agonist (BID), mRNA |
| 11742 | 23928 | 37553 | 2.02 | 6.0E-99 | 9910279 | NT | Homo sapiens UDP-glucose:glycoprotein glucosyltransferase 1 (HUGT1), mRNA |
| 11742 | 23928 | 37554 | 2.02 | 6.0E-99 | 9910279 | NT | Homo sapiens UDP-glucose:glycoprotein glucosyltransferase 1 (HUGT1), mRNA |
| 2022 | 15163 | 28268 | 1 | 5.0E-99 | Y11365.1 | NT | H.sapiens IMPA gene, exon 8 |
| 4686 | 17821 | 30809 | 1.81 | 5.0E-99 | AF009660.1 | NT | Homo sapiens T cell receptor beta locus, TCRBV7S3A2 to TCRBV12S2 region |
| 12502 | 25346 | | 2.49 | 5.0E-99 | BE890177.1 | EST_HUMAN | 601613167F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3914391 5' |
| 8516 | 21597 | | 4.95 | 3.0E-99 | M95586.1 | NT | Human E2A/HLA fusion protein (E2A/HLF) mRNA, complete cds |
| 1268 | 14426 | | 7.26 | 2.0E-99 | AW274792.1 | EST_HUMAN | xp09e06.x1 NCI_CGAP_HN9 Homo sapiens cDNA clone IMAGE:2739874 3' similar to gb:M31212 MYOSIN LIGHT CHAIN ALKALI, NON-MUSCLE ISOFORM (HUMAN); |
| 3331 | 16504 | 29522 | 1.4 | 2.0E-99 | M30938.1 | NT | Human Ku (p70/p80) subunit mRNA, complete cds |
| 4665 | 17800 | 30787 | 1.82 | 2.0E-99 | AF095703.1 | NT | Homo sapiens short chain L-3-hydroxyacyl-CoA dehydrogenase precursor (HADHSC) gene, nuclear gene encoding mitochondrial protein, complete cds |
| 7851 | 20906 | 34410 | 0.76 | 2.0E-99 | AF257737.1 | NT | Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds |
| 8904 | 21983 | 35523 | 10.79 | 2.0E-99 | W23507.1 | EST_HUMAN | zb46d06.r1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:306635 5' similar to gb:M15182 BETA-GLUCURONIDASE PRECURSOR (HUMAN); |
| 9353 | 22428 | 35986 | 0.75 | 2.0E-99 | R78254.1 | EST_HUMAN | yi81b09.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:145625 5' |
| 11367 | 24428 | 38085 | 3.16 | 2.0E-99 | AF247457.2 | NT | Homo sapiens myosin X (MYO10) mRNA, complete cds |
| 12081 | 25061 | 38767 | 1.64 | 2.0E-99 | 10863960 | NT | Homo sapiens potassium channel, subfamily K, member 10 (KCNK10), mRNA |
| 325 | 13539 | 26571 | 1.49 | 1.0E-99 | AF114487.1 | NT | Homo sapiens intersectin long isoform (ITSN) mRNA, complete cds |
| 390 | 13596 | 26632 | 1.75 | 1.0E-99 | 11526150 | NT | Homo sapiens GA-binding protein transcription factor, alpha subunit (60kD) (GABPA), mRNA |
| 1452 | 14605 | 27684 | 3.61 | 1.0E-99 | M30938.1 | NT | Human Ku (p70/p80) subunit mRNA, complete cds |
| 1587 | 14739 | 27819 | 1.16 | 1.0E-99 | AF192523.1 | NT | Homo sapiens truncated Niemann-Pick C3 protein (NPC3) mRNA, complete cds |
| 1587 | 14739 | 27820 | 1.16 | 1.0E-99 | AF192523.1 | NT | Homo sapiens truncated Niemann-Pick C3 protein (NPC3) mRNA, complete cds |
| 1980 | 15123 | 28224 | 1.21 | 1.0E-99 | 4503730 | NT | Homo sapiens FK506-binding protein 6 (36kD) (FKBP6) mRNA, and translated products |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1980 | 15123 | 28225 | 1.21 | 1.0E-99 | 4503730 | NT | Homo sapiens FK506-binding protein 6 (36kD) (FKBP6) mRNA, and translated products |
| 3154 | 16329 | 29339 | 0.93 | 1.0E-99 | J03171.1 | NT | Human interferon-alpha receptor (HuIFN-alpha-Rec) mRNA, complete cds |
| 4499 | 17639 | 30621 | 2.64 | 1.0E-99 | AF098018.1 | NT | Homo sapiens fatty acid amide hydrolase (FAAH) gene, exon 14 |
| 4499 | 17639 | 30622 | 2.64 | 1.0E-99 | AF098018.1 | NT | Homo sapiens fatty acid amide hydrolase (FAAH) gene, exon 14 |
| 6943 | 20256 | 33694 | 1.25 | 1.0E-99 | 11421007 | NT | Homo sapiens glycine receptor, alpha 2 (GLRA2), mRNA |
| 6943 | 20256 | 33695 | 1.25 | 1.0E-99 | 11421007 | NT | Homo sapiens glycine receptor, alpha 2 (GLRA2), mRNA |
| 7289 | 25842 | 33827 | 0.81 | 1.0E-99 | X98022.1 | NT | H.sapiens E6-AP gene exon 2 |
| 9400 | 22474 | | 0.75 | 1.0E-99 | 11419721 | NT | Homo sapiens ALEX1 protein (LOC51309), mRNA |
| 9720 | 22785 | 36356 | 1.7 | 1.0E-99 | AW340174.1 | EST_HUMAN | hd02h02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2908371 3' similar to TR:O02711 O02711 PRO-POL-DUTPASE POLYPROTEIN ; |
| 11403 | 24464 | 38128 | 2.56 | 1.0E-99 | 7427514 | NT | Homo sapiens huntingtin interacting protein 1 (HIP1), mRNA |
| 11403 | 24464 | 38129 | 2.56 | 1.0E-99 | 7427514 | NT | Homo sapiens huntingtin interacting protein 1 (HIP1), mRNA |
| 11462 | 24521 | 38191 | 1.68 | 1.0E-99 | 5901979 | NT | Homo sapiens heat shock transcription factor 2 binding protein (HSF2BP), mRNA |
| 11659 | 24738 | 38429 | 2.83 | 1.0E-99 | AB023222.1 | NT | Homo sapiens mRNA for KIAA1005 protein, partial cds |
| 11996 | 24981 | 38687 | 2.45 | 1.0E-99 | 11417191 | NT | Homo sapiens leucyl/cystinyl aminopeptidase (LNPEP), mRNA |
| 12257 | 25193 | | 4.62 | 1.0E-99 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 1 | 13241 | 26241 | 1.7 | 1.0E-100 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 2 | 13241 | 26241 | 2.91 | 1.0E-100 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 70 | 13307 | 26329 | 1.62 | 1.0E-100 | 11418230 | NT | Homo sapiens Testis-specific XK-related protein on Y (XKRY), mRNA |
| 70 | 13307 | 26330 | 1.62 | 1.0E-100 | 11418230 | NT | Homo sapiens Testis-specific XK-related protein on Y (XKRY), mRNA |
| 89 | 13324 | 26353 | 0.82 | 1.0E-100 | AW275237.1 | EST_HUMAN | xv78b11.x1 NCI_CGAP_Brn53 Homo sapiens cDNA clone IMAGE:2824605 3' |
| 173 | 13397 | 26425 | 0.89 | 1.0E-100 | AL163206.2 | NT | Homo sapiens chromosome 21 segment HS21C006 |
| 327 | 13541 | 26573 | 1.84 | 1.0E-100 | AL163249.2 | NT | Homo sapiens chromosome 21 segment HS21C049 |
| 353 | 13564 | 26592 | 1.87 | 1.0E-100 | T05087.1 | EST_HUMAN | EST02975 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBCR32 |
| 450 | 13646 | | 2.24 | 1.0E-100 | AF003528.1 | NT | Homo sapiens X-linked anhidroitic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 502 | 13697 | | 5.88 | 1.0E-100 | X89631.1 | NT | G.gorilla DNA for ZNF80 gene homolog |
| 522 | 13715 | 26742 | 1.21 | 1.0E-100 | BE180609.1 | EST_HUMAN | RC3-HT0625-040500-022-b09 HT0625 Homo sapiens cDNA |
| 1044 | 14210 | 27266 | 4.57 | 1.0E-100 | 7661685 | NT | Homo sapiens DKFZP586M0122 protein (DKFZP586M0122), mRNA |
| 1044 | 14210 | 27267 | 4.57 | 1.0E-100 | 7661685 | NT | Homo sapiens DKFZP586M0122 protein (DKFZP586M0122), mRNA |
| 1577 | 14730 | | 1.3 | 1.0E-100 | AW207555.1 | EST_HUMAN | UI-H-BI1-afk-c-07-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2722164 3' |
| 1681 | 14733 | 27814 | 1.66 | 1.0E-100 | AI200857.1 | EST_HUMAN | qf62f09.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1754633 3' similar to SW:CYT_COTJA P81061 CYSTATIN ; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2315 | 15447 | | 1.14 | 1.0E-100 | D83349.1 | NT | Rat mRNA for short type PB-cadherin, complete cds |
| 2507 | 15634 | 28754 | 1.41 | 1.0E-100 | X62468.1 | NT | H.sapiens mRNA for IFN-gamma (pKC-0) |
| 2771 | 15886 | 28996 | 2.5 | 1.0E-100 | 11418976 | NT | Homo sapiens KIAA0957 protein (KIAA0957), mRNA |
| 3083 | 16259 | | 6.55 | 1.0E-100 | D11078.1 | NT | Homo sapiens RGH2 gene, retrovirus-like element |
| 4326 | 17469 | 30456 | 1.67 | 1.0E-100 | AF057354.1 | NT | Homo sapiens myotubularin-related protein 1a mRNA, partial cds |
| 4351 | 17494 | 30474 | 2.28 | 1.0E-100 | 4503792 | NT | Homo sapiens follicle stimulating hormone receptor (FSHR) mRNA |
| 5202 | 18323 | 31291 | 3.01 | 1.0E-100 | 5032104 | NT | Homo sapiens small optic lobes (Drosophila) homolog (SOLH) mRNA |
| 5202 | 18323 | 31292 | 3.01 | 1.0E-100 | 5032104 | NT | Homo sapiens small optic lobes (Drosophila) homolog (SOLH) mRNA |
| 5404 | 18606 | 31578 | 1.74 | 1.0E-100 | BF244218.1 | EST_HUMAN | 601863164F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4080999 5' |
| 5625 | 18819 | 31893 | 0.76 | 1.0E-100 | AW075983.1 | EST_HUMAN | xa82f01.x1 NCI_CGAP_CML1 Homo sapiens cDNA clone IMAGE:2573305 3' similar to gb:X12433 PROTEIN PHPS1-2 (HUMAN); |
| 5818 | 19008 | 32314 | 1.45 | 1.0E-100 | AU118182.1 | EST_HUMAN | AU118182 HEMBA1 Homo sapiens cDNA clone HEMBA1003046 5' |
| 5864 | 19054 | 32361 | 1.78 | 1.0E-100 | AF135116.1 | NT | Homo sapiens NF-E2-related factor 3 gene, complete cds |
| 5960 | 19146 | 32461 | 0.85 | 1.0E-100 | X14690.1 | NT | Human mRNA for plasma inter-alpha-trypsin inhibitor heavy chain H(3) |
| 6292 | 19465 | 32817 | 0.9 | 1.0E-100 | 4557568 | NT | Homo sapiens ER to nucleus signalling 1 (ERN1) mRNA |
| 6292 | 19465 | 32818 | 0.9 | 1.0E-100 | 4557568 | NT | Homo sapiens ER to nucleus signalling 1 (ERN1) mRNA |
| 6626 | 19786 | 33174 | 5.62 | 1.0E-100 | AU140214.1 | EST_HUMAN | AU140214 PLACE2 Homo sapiens cDNA clone PLACE2000137 5' |
| 6824 | 19977 | 33384 | 1.36 | 1.0E-100 | R10887.1 | EST_HUMAN | yf38c08.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:129134 3' |
| 6908 | 20223 | 33653 | 1.77 | 1.0E-100 | 7382479 | NT | Homo sapiens Rho GTPase activating protein 6 (ARHGAP6), transcript variant 4, mRNA |
| 6982 | 20210 | 33638 | 1.02 | 1.0E-100 | AA496841.1 | EST_HUMAN | ae33b06.r1 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:897587 5' similar to TR:G487418 G487418 ACTIN FILAMENT-ASSOCIATED PROTEIN. ; |
| 6982 | 20210 | 33639 | 1.02 | 1.0E-100 | AA496841.1 | EST_HUMAN | ae33b06.r1 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:897587 5' similar to TR:G487418 G487418 ACTIN FILAMENT-ASSOCIATED PROTEIN. ; |
| 7026 | 20162 | 33583 | 1.18 | 1.0E-100 | BF376478.1 | EST_HUMAN | MR1-TN0046-060900-004-b05 TN0046 Homo sapiens cDNA |
| 7026 | 20162 | 33584 | 1.18 | 1.0E-100 | BF376478.1 | EST_HUMAN | MR1-TN0046-060900-004-b05 TN0046 Homo sapiens cDNA |
| 7033 | 20169 | 33591 | 6.2 | 1.0E-100 | X04571.1 | NT | Human mRNA for kidney epidermal growth factor (EGF) precursor |
| 8729 | 21809 | 35345 | 3.53 | 1.0E-100 | BF103853.1 | EST_HUMAN | 601647357F1 NIH_MGC_61 Homo sapiens cDNA clone IMAGE:3931310 5' |
| 8766 | 21845 | | 5.59 | 1.0E-100 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 9216 | 22294 | 35837 | 0.47 | 1.0E-100 | AU116951.1 | EST_HUMAN | AU116951 HEMBA1 Homo sapiens cDNA clone HEMBA1000343 5' |
| 9216 | 22294 | 35838 | 0.47 | 1.0E-100 | AU116951.1 | EST_HUMAN | AU116951 HEMBA1 Homo sapiens cDNA clone HEMBA1000343 5' |
| 9433 | 22507 | 36073 | 3.88 | 1.0E-100 | AB040918.1 | NT | Homo sapiens mRNA for KIAA1485 protein, partial cds |
| 9510 | 22776 | | 1.65 | 1.0E-100 | AI972388.1 | EST_HUMAN | wr37g09.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2489920 3' similar to contains element MER22 repetitive element ; |
| 9633 | 21076 | 34588 | 2.28 | 1.0E-100 | AW998611.1 | EST_HUMAN | PM0-BN0065-100300-001-c06 BN0065 Homo sapiens cDNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9687 | 22736 | | 0.84 | 1.0E-100 | AU127720.1 | EST_HUMAN | AU127720 NT2RP2 Homo sapiens cDNA clone NT2RP2001918 5' |
| 9782 | 22822 | 36400 | 2.17 | 1.0E-100 | AB046846.1 | NT | Homo sapiens mRNA for KIAA1626 protein, partial cds |
| 9782 | 22822 | 36401 | 2.17 | 1.0E-100 | AB046846.1 | NT | Homo sapiens mRNA for KIAA1626 protein, partial cds |
| 10048 | 23086 | 36687 | 1.81 | 1.0E-100 | AW630487.1 | EST_HUMAN | hh83c11.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2969396 5' |
| 10048 | 23086 | 36688 | 1.81 | 1.0E-100 | AW630487.1 | EST_HUMAN | hh83c11.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2969396 5' |
| 10688 | 23721 | 37327 | 0.64 | 1.0E-100 | BF347519.1 | EST_HUMAN | 602020554F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4156165 5' |
| 10782 | 23815 | | 1.35 | 1.0E-100 | Y10391.1 | NT | Human endogenous retrovirus HERV-K, pol gene |
| 10996 | 24075 | 37708 | 6.64 | 1.0E-100 | BF327292.1 | EST_HUMAN | MR0-BN0070-270300-008-h11 BN0070 Homo sapiens cDNA |
| 11564 | 24619 | 38300 | 1.56 | 1.0E-100 | X94633.1 | NT | H.sapiens CD97 gene exon 4 |
| 11564 | 24619 | 38301 | 1.55 | 1.0E-100 | X94633.1 | NT | H.sapiens CD97 gene exon 4 |
| 11635 | 24715 | 38406 | 3.91 | 1.0E-100 | AF111170.3 | NT | Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene |
| 11635 | 24715 | 38406 | 3.91 | 1.0E-100 | AF111170.3 | NT | Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene |
| 11665 | 13241 | 26241 | 3.07 | 1.0E-100 | AL163247.2 | NT | Homo sapiens chromosome 21 segment HS21C047 |
| 11977 | 24962 | | 2.21 | 1.0E-100 | AF266285.1 | NT | Homo sapiens golgin-like protein (GLP) gene, complete cds |
| 12128 | 25108 | 38812 | 1.93 | 1.0E-100 | AJ131034.1 | NT | Homo sapiens otase gene, exon 12 |
| 12177 | 25137 | 38832 | 7.59 | 1.0E-100 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 12312 | 26037 | | 1.78 | 1.0E-100 | BF446549.1 | EST_HUMAN | 7q88h03.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE: 3' similar to TR:Q21997 Q21997 COSMID R151. [2] TR:Q9UA08 ; |
| 12493 | 25341 | 32063 | 4.97 | 1.0E-100 | 11545732 | NT | Homo sapiens SH3-domain binding protein 1 (SH3BP1), mRNA |
| 12754 | 25500 | 32033 | 1.31 | 1.0E-100 | 11418123 | NT | Homo sapiens KIAA0063 gene product (KIAA0063), mRNA |
| 13195 | 25778 | 31935 | 6.91 | 1.0E-100 | 11417974 | NT | Homo sapiens transcobalamin II; macrocytic anemia (TCN2), mRNA |
| 79 | 13316 | 26342 | 0.92 | 1.0E-101 | 7110714 | NT | Homo sapiens SEC14 (S. cerevisiae)-like 2 (SEC14L2), mRNA |
| 79 | 13315 | 26343 | 0.92 | 1.0E-101 | 7110714 | NT | Homo sapiens SEC14 (S. cerevisiae)-like 2 (SEC14L2), mRNA |
| 704 | 13887 | 26919 | 1.4 | 1.0E-101 | AB007915.2 | NT | Homo sapiens mRNA for KIAA0446 protein, partial cds |
| 722 | 13904 | 26945 | 6.12 | 1.0E-101 | 7110734 | NT | Homo sapiens ventral anterior homeobox 2 (VAX2), mRNA |
| 722 | 13904 | 26946 | 6.12 | 1.0E-101 | 7110734 | NT | Homo sapiens ventral anterior homeobox 2 (VAX2), mRNA |
| 792 | 13971 | 27023 | 1.37 | 1.0E-101 | 7657454 | NT | Homo sapiens pescadillo (zebrafish) homolog 1, containing BRCT domain (PES1), mRNA |
| 876 | 14052 | 27117 | 1.35 | 1.0E-101 | 4503914 | NT | Homo sapiens phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide synthetase, phosphoribosylaminoimidazole synthetase (GART) mRNA |
| 948 | 14121 | 27182 | 0.85 | 1.0E-101 | Z20656.1 | NT | Homo sapiens of cardiac alpha-myosin heavy chain gene |
| 1009 | 14180 | 27243 | 6.07 | 1.0E-101 | BF881218.1 | EST_HUMAN | 602156474F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4297291 5' |
| 1077 | 14243 | 27299 | 1.39 | 1.0E-101 | AI221878.1 | EST_HUMAN | qg99e09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1843336 3' |
| 1614 | 14767 | 27849 | 1.44 | 1.0E-101 | 5921460 | NT | Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1614 | 14767 | 27850 | 1.44 | 1.0E-101 | 5921460 | NT | Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA |
| 1785 | 14934 | 28028 | 1.57 | 1.0E-101 | 7662183 | NT | Homo sapiens KIAA0569 gene product (KIAA0569), mRNA |
| 1785 | 14934 | 28029 | 1.57 | 1.0E-101 | 7662183 | NT | Homo sapiens KIAA0569 gene product (KIAA0569), mRNA |
| 1999 | 15140 | 28247 | 2.07 | 1.0E-101 | 4502996 | NT | Homo sapiens carboxypeptidase A1 (pancreatic) (CPA1) mRNA |
| 2116 | 15254 | 28373 | 2.76 | 1.0E-101 | BE843070.1 | EST_HUMAN | RC3-ST0281-160600-016-h09 ST0281 Homo sapiens cDNA |
| 2425 | 16062 | 28680 | 1.2 | 1.0E-101 | 5729892 | NT | Homo sapiens A kinase (PRKA) anchor protein 6 (AKAP6), mRNA |
| 2680 | 15800 | 28917 | 4.62 | 1.0E-101 | X72993.1 | NT | H.sapiens EWS gene, exon 5 |
| 2802 | 15916 | 29025 | 9.27 | 1.0E-101 | AJ237744.1 | NT | Homo sapiens RIBIIR gene (partial), exon 12 |
| 2802 | 15916 | 29026 | 9.27 | 1.0E-101 | AJ237744.1 | NT | Homo sapiens RIBIIR gene (partial), exon 12 |
| 3020 | 16196 |  | 20.15 | 1.0E-101 | AJ252312.1 | NT | Homo sapiens genomic downstream Rhesus box |
| 3273 | 16447 | 29467 | 2.97 | 1.0E-101 | 4885270 | NT | Homo sapiens gamma-glutamyltransferase 1 (GGT1) mRNA |
| 3313 | 16486 |  | 2.3 | 1.0E-101 | BF035327.1 | EST_HUMAN | 601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 3468 | 16635 | 29654 | 1.82 | 1.0E-101 | AW965556.1 | EST_HUMAN | EST377629 MAGE resequences, MAGI Homo sapiens cDNA |
| 3487 | 15916 | 29025 | 3.59 | 1.0E-101 | AJ237744.1 | NT | Homo sapiens RIBIIR gene (partial), exon 12 |
| 3487 | 15916 | 29026 | 3.59 | 1.0E-101 | AJ237744.1 | NT | Homo sapiens RIBIIR gene (partial), exon 12 |
| 3981 | 17138 | 30142 | 3.81 | 1.0E-101 | AB022785.1 | NT | Homo sapiens ASH2L gene, complete cds, similar to Drosophila ash2 gene |
| 5147 | 18269 | 31239 | 1.14 | 1.0E-101 | 5921460 | NT | Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA |
| 5147 | 18269 | 31240 | 1.14 | 1.0E-101 | 5921460 | NT | Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA |
| 5248 | 18369 | 31336 | 0.6 | 1.0E-101 | BE612554.1 | EST_HUMAN | 601452067F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3855761 5' |
| 5248 | 18369 | 31337 | 0.6 | 1.0E-101 | BE612554.1 | EST_HUMAN | 601452067F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3855761 5' |
| 5433 | 18633 | 31611 | 1.94 | 1.0E-101 | AW965139.1 | EST_HUMAN | EST377212 MAGE resequences, MAGI Homo sapiens cDNA |
| 6126 | 19305 | 32645 | 4.07 | 1.0E-101 | 7427512 | NT | Homo sapiens cytoplasmic linker 2 (CYLN2), mRNA |
| 6126 | 19305 | 32646 | 4.07 | 1.0E-101 | 7427512 | NT | Homo sapiens cytoplasmic linker 2 (CYLN2), mRNA |
| 6834 | 19987 | 33396 | 0.96 | 1.0E-101 | 11430734 | NT | Homo sapiens carbonic anhydrase VII (CA7), mRNA |
| 7423 | 20500 |  | 1.26 | 1.0E-101 | 11545780 | NT | Homo sapiens hypothetical protein FLJ22087 (FLJ22087), mRNA |
| 7473 | 20548 | 34019 | 4.22 | 1.0E-101 | AF208970.1 | NT | Homo sapiens Kruppel-type zinc finger protein (PEG3) mRNA, alternative splice form 4, partial cds |
| 7473 | 20548 | 34020 | 4.22 | 1.0E-101 | AF208970.1 | NT | Homo sapiens Kruppel-type zinc finger protein (PEG3) mRNA, alternative splice form 4, partial cds |
| 7645 | 20714 | 34192 | 7.65 | 1.0E-101 | AW008475.1 | EST_HUMAN | wv55f12.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2533487 3' |
| 7749 | 20809 |  | 1.99 | 1.0E-101 | BE257384.1 | EST_HUMAN | 601109217F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3349901 5' |
| 7900 | 20952 | 34459 | 6.54 | 1.0E-101 | BF330759.1 | EST_HUMAN | RC1-BT0313-220700-018-f12 BT0313 Homo sapiens cDNA |
| 8097 | 21179 | 34696 | 0.74 | 1.0E-101 | BE275821.1 | EST_HUMAN | 601121621F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3345869 5' |
| 8097 | 21179 | 34697 | 0.74 | 1.0E-101 | BE275821.1 | EST_HUMAN | 601121621F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3345869 5' |
| 8245 | 21327 | 34843 | 1.6 | 1.0E-101 | BF029174.1 | EST_HUMAN | 601764686F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3996837 5' |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8517 | 21598 | 35132 | 0.71 | 1.0E-101 | AW630070.1 | EST_HUMAN | hh74g10.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2968578 5' similar to gb:J03143 INTERFERON-GAMMA RECEPTOR ALPHA CHAIN PRECURSOR (HUMAN); |
| 8517 | 21598 | 35133 | 0.71 | 1.0E-101 | AW630070.1 | EST_HUMAN | hh74g10.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2968578 5' similar to gb:J03143 INTERFERON-GAMMA RECEPTOR ALPHA CHAIN PRECURSOR (HUMAN); |
| 9212 | 22290 | 35832 | 1.1 | 1.0E-101 | AA036800.1 | EST_HUMAN | zk29g08.r1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:471998 5' similar to PIR:S54640 S54640 YD9335.03c protein - yeast ; |
| 9531 | 22598 | 36167 | 0.99 | 1.0E-101 | AB037772.1 | NT | Homo sapiens mRNA for KIAA1351 protein, partial cds |
| 9531 | 22598 | 36168 | 0.99 | 1.0E-101 | AB037772.1 | NT | Homo sapiens mRNA for KIAA1351 protein, partial cds |
| 9661 | 21103 | 34619 | 17.36 | 1.0E-101 | X60069.1 | NT | Human mRNA for pancreatic gamma-glutamyltransferase |
| 9661 | 21103 | 34620 | 17.36 | 1.0E-101 | X60069.1 | NT | Human mRNA for pancreatic gamma-glutamyltransferase |
| 9676 | 22638 | 36209 | 19.41 | 1.0E-101 | 9845492 | NT | Homo sapiens gamma-glutamyltransferase 1 (GGT1), transcript variant 3, mRNA |
| 9959 | 22998 | 36593 | 3.36 | 1.0E-101 | BE619667.1 | EST_HUMAN | 601472808T1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3875953 3' |
| 9959 | 22998 | 36594 | 3.36 | 1.0E-101 | BE619667.1 | EST_HUMAN | 601472808T1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3875953 3' |
| 10098 | 23136 | 36737 | 0.68 | 1.0E-101 | 10863960 | NT | Homo sapiens potassium channel, subfamily K, member 10 (KCNK10), mRNA |
| 10620 | 23654 | 37264 | 1.94 | 1.0E-101 | 11429127 | NT | Homo sapiens Janus kinase 2 (a protein tyrosine kinase) (JAK2), mRNA |
| 10656 | 23690 | 37299 | 4.37 | 1.0E-101 | AI570293.1 | EST_HUMAN | to77d11.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2184309 3' similar to gb:M26326 KERATIN, TYPE I CYTOSKELETAL 18 (HUMAN); |
| 10656 | 23690 | 37300 | 4.37 | 1.0E-101 | AI570293.1 | EST_HUMAN | to77d11.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2184309 3' similar to gb:M26326 KERATIN, TYPE I CYTOSKELETAL 18 (HUMAN); |
| 10771 | 23804 | 37426 | 0.83 | 1.0E-101 | BE973648.1 | EST_HUMAN | 601680825F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3950887 5' |
| 10771 | 23804 | 37427 | 0.83 | 1.0E-101 | BE973648.1 | EST_HUMAN | 601680825F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:3950887 5' |
| 11371 | 24432 | 38089 | 1.31 | 1.0E-101 | AB020626.1 | NT | Homo sapiens mRNA for KIAA0819 protein, partial cds |
| 12059 | 25040 | 38748 | 1.85 | 1.0E-101 | AI908168.1 | EST_HUMAN | RC-BT163-290499-085 BT163 Homo sapiens cDNA |
| 12059 | 25040 | 38749 | 1.85 | 1.0E-101 | AI908168.1 | EST_HUMAN | RC-BT163-290499-085 BT163 Homo sapiens cDNA |
| 12738 | 25489 |  | 2.24 | 1.0E-101 | BE163587.1 | EST_HUMAN | QV3-HT0460-230200-101-d03 HT0460 Homo sapiens cDNA |
| 12793 | 25529 |  | 12.79 | 1.0E-101 | AW939051.1 | EST_HUMAN | QV1-DT0068-240200-085-a01 DT0068 Homo sapiens cDNA |
| 40 | 13278 | 26284 | 0.61 | 1.0E-102 | AF012872.1 | NT | Homo sapiens phosphatidylinositol 4-kinase 230 (pI4K230) mRNA, complete cds |
| 351 | 13562 | 26589 | 4.57 | 1.0E-102 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 635 | 13820 | 26844 | 0.61 | 1.0E-102 | BE252470.1 | EST_HUMAN | 601108292F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3344326 5' |
| 796 | 13975 | 27028 | 1.06 | 1.0E-102 | 4557534 | NT | Homo sapiens down-regulated in adenoma (DRA) mRNA |
| 1141 | 14306 | 27362 | 1.9 | 1.0E-102 | M10976.1 | NT | Human endogenous retroviral DNA (4-1), complete retroviral segment |
| 1297 | 14453 | 27518 | 2.05 | 1.0E-102 | 11437146 | NT | Homo sapiens solute carrier family 2 (facilitated glucose transporter), member 9 (SLC2A9), mRNA |
| 1297 | 14453 | 27519 | 2.05 | 1.0E-102 | 11437146 | NT | Homo sapiens solute carrier family 2 (facilitated glucose transporter), member 9 (SLC2A9), mRNA |
| 1450 | 14603 | 27681 | 355.9 | 1.0E-102 | BE408447.1 | EST_HUMAN | 601299982F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3629901 5' |

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## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2383 | 15514 | 28642 | 1.91 | 1.0E-102 | AI124669.1 | EST_HUMAN | am60c10.x1 Johnston frontal cortex Homo sapiens cDNA clone IMAGE:1539954 3' similar to SW:GG95_HUMAN Q08379 GOLGIN-95. ; |
| 2383 | 15514 | 28643 | 1.91 | 1.0E-102 | AI124669.1 | EST_HUMAN | am60c10.x1 Johnston frontal cortex Homo sapiens cDNA clone IMAGE:1539954 3' similar to SW:GG95_HUMAN Q08379 GOLGIN-95. ; |
| 3090 | 16266 |  | 0.74 | 1.0E-102 | Y13932.1 | NT | Homo sapiens PRKY exon 7 |
| 3133 | 16309 | 29322 | 1.47 | 1.0E-102 | 7661979 | NT | Homo sapiens KIAA0187 gene product (KIAA0187), mRNA |
| 3203 | 16378 | 29387 | 3.73 | 1.0E-102 | AU141005.1 | EST_HUMAN | AU141005 PLACE4 Homo sapiens cDNA clone PLACE4000650 5' |
| 3203 | 16378 | 29388 | 3.73 | 1.0E-102 | AU141005.1 | EST_HUMAN | AU141005 PLACE4 Homo sapiens cDNA clone PLACE4000650 5' |
| 4347 | 17490 | 30472 | 1.74 | 1.0E-102 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 4533 | 17671 | 30655 | 2.57 | 1.0E-102 | BE251310.1 | EST_HUMAN | 601107843F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3343882 5' |
| 5224 | 18346 | 31316 | 1.28 | 1.0E-102 | R66488.1 | EST_HUMAN | yi32c04.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:140934 5' |
| 5487 | 18686 | 31704 | 1.6 | 1.0E-102 | AF067133.1 | NT | Homo sapiens protein phosphatase-1 regulatory subunit 7 (PPP1R7) gene, exon 7 |
| 5867 | 19057 |  | 6.87 | 1.0E-102 | AB034951.1 | NT | Homo sapiens HSC54 mRNA for heat shock cognate protein 54, complete cds |
| 5905 | 19094 | 32408 | 3.25 | 1.0E-102 | 7705398 | NT | Homo sapiens histone deacetylase 7 (HDAC7), mRNA |
| 5905 | 19094 | 32409 | 3.25 | 1.0E-102 | 7705398 | NT | Homo sapiens histone deacetylase 7 (HDAC7), mRNA |
| 5912 | 19100 | 32414 | 0.81 | 1.0E-102 | 11433046 | NT | Homo sapiens hect domain and RLD 2 (HERC2), mRNA |
| 6422 | 19591 | 32966 | 2.81 | 1.0E-102 | AI459825.1 | EST_HUMAN | ar82f09.x1 Barstead colon HPLRB7 Homo sapiens cDNA clone IMAGE:2151785 3' similar to TR:Q13137 Q13137 NDP52. ; |
| 7227 | 20090 | 33507 | 0.7 | 1.0E-102 | AW451643.1 | EST_HUMAN | UI-H-BI3-alj-d-10-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2736835 3' |
| 7286 | 20369 | 33823 | 0.91 | 1.0E-102 | BE729323.1 | EST_HUMAN | 601561505F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3831241 5' |
| 7314 | 20396 | 33858 | 1.02 | 1.0E-102 | BE386106.1 | EST_HUMAN | 601277215F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3618243 5' |
| 7429 | 20506 | 33977 | 1.5 | 1.0E-102 | AB023177.1 | NT | Homo sapiens mRNA for KIAA0960 protein, partial cds |
| 7510 | 20584 | 34057 | 8.03 | 1.0E-102 | AJ238994.1 | NT | Homo sapiens mRNA for Centaurin-alpha2 protein |
| 7802 | 20858 | 34350 | 2.61 | 1.0E-102 | AV710738.1 | EST_HUMAN | AV710738 Cu Homo sapiens cDNA clone CuAAKD03 5' |
| 8418 | 21499 | 35031 | 3.85 | 1.0E-102 | BE763051.1 | EST_HUMAN | QV3-NT0025-210600-236-h08 NT0025 Homo sapiens cDNA |
| 8691 | 21771 | 35301 | 1.71 | 1.0E-102 | AV694817.1 | EST_HUMAN | AV694817 GKC Homo sapiens cDNA clone GKCEEE11 5' |
| 8691 | 21771 | 35302 | 1.71 | 1.0E-102 | AV694817.1 | EST_HUMAN | AV694817 GKC Homo sapiens cDNA clone GKCEEE11 5' |
| 8802 | 21881 | 35419 | 0.81 | 1.0E-102 | AB007923.1 | NT | Homo sapiens mRNA for KIAA0454 protein, partial cds |
| 9131 | 22210 | 35754 | 1.2 | 1.0E-102 | BE388063.1 | EST_HUMAN | 601283770F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3605536 5' |
| 9131 | 22210 | 35755 | 1.2 | 1.0E-102 | BE388063.1 | EST_HUMAN | 601283770F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3605536 5' |
| 9481 | 22538 | 36102 | 0.84 | 1.0E-102 | AV755842.1 | EST_HUMAN | AV755842 BM Homo sapiens cDNA clone BMFAUD06 5' |
| 9522 | 22587 | 36155 | 2 | 1.0E-102 | T70393.1 | EST_HUMAN | yd13d07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:67021 5' |
| 9522 | 22587 | 36156 | 2 | 1.0E-102 | T70393.1 | EST_HUMAN | yd13d07.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:67021 5' |
| 9611 | 22666 | 36237 | 3.11 | 1.0E-102 | AU124629.1 | EST_HUMAN | AU124629 NT2RM4 Homo sapiens cDNA clone NT2RM4000309 5' |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10593 | 23628 | | 0.64 | 1.0E-102 | AF153715.1 | NT | Homo sapiens phospholipid scramblase 1 gene, exon 1 and 5' flanking region |
| 10647 | 23681 | 37291 | 0.67 | 1.0E-102 | 11425430 | NT | Homo sapiens myomesin (M-protein) 2 (165kD) (MYOM2), mRNA |
| 10647 | 23681 | 37292 | 0.67 | 1.0E-102 | 11425430 | NT | Homo sapiens myomesin (M-protein) 2 (165kD) (MYOM2), mRNA |
| 10687 | 23720 | 37325 | 3.26 | 1.0E-102 | AI905037.1 | EST_HUMAN | RC-BT074-260499-014 BT074 Homo sapiens cDNA |
| 10687 | 23720 | 37326 | 3.26 | 1.0E-102 | AI905037.1 | EST_HUMAN | RC-BT074-260499-014 BT074 Homo sapiens cDNA |
| 10748 | 23781 | 37394 | 1.5 | 1.0E-102 | AA970786.1 | EST_HUMAN | on57h04.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1560823 3' similar to SW:CAV2_HUMAN P51636 CAVEOLIN-2. [1] ; |
| 11323 | 24386 | 38030 | 1.37 | 1.0E-102 | BE897468.1 | EST_HUMAN | 601439392F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924166 5' |
| 11327 | 24390 | 38035 | 2.44 | 1.0E-102 | 4507822 | NT | Homo sapiens UDP glycosyltransferase 2 family, polypeptide B11 (UGT2B11) mRNA |
| 11327 | 24390 | 38036 | 2.44 | 1.0E-102 | 4507822 | NT | Homo sapiens UDP glycosyltransferase 2 family, polypeptide B11 (UGT2B11) mRNA |
| 11600 | 24653 | 38337 | 1.47 | 1.0E-102 | AA868675.1 | EST_HUMAN | ak49h10.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1409347 3' |
| 11690 | 24688 | 38378 | 2.47 | 1.0E-102 | BF359243.1 | EST_HUMAN | RC6-ET0072-150600-011-F01 ET0072 Homo sapiens cDNA |
| 12009 | 24994 | 38699 | 2.83 | 1.0E-102 | U41302.1 | NT | Human chromosome 16 creatine transporter (SLC6A8) and (CDM) paralogous genes, complete cds |
| 12182 | 25142 | | 5.69 | 1.0E-102 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 12775 | 25517 | 32000 | 5.67 | 1.0E-102 | AW300862.1 | EST_HUMAN | xk07c12.x1 NCI_CGAP_Co20 Homo sapiens cDNA clone IMAGE:2666038 3' |
| 12831 | 25553 | 32015 | 1.25 | 1.0E-102 | 11419159 | NT | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4), mRNA |
| 71 | 13308 | 26331 | 0.85 | 1.0E-103 | BE908158.1 | EST_HUMAN | 601500405F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3902305 5' |
| 71 | 13308 | 26332 | 0.85 | 1.0E-103 | BE908158.1 | EST_HUMAN | 601500405F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3902305 5' |
| 102 | 13338 | 26365 | 8.24 | 1.0E-103 | D87078.2 | NT | *Homo sapiens mRNA for KIAA0235 protein, partial cds* |
| 213 | 13436 | 26466 | 0.84 | 1.0E-103 | 5453793 | NT | Homo sapiens nucleolar protein (KKE/D repeat) (NOP56) mRNA |
| 1004 | 14176 | 27234 | 74.34 | 1.0E-103 | AJ278348.1 | NT | Homo sapiens mRNA for pregnancy-associated plasma protein-E (PAPPE gene) |
| 1272 | 14429 | 27500 | 7.08 | 1.0E-103 | BE877541.1 | EST_HUMAN | 601485388F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3887876 5' |
| 1626 | 14778 | 27863 | 3.51 | 1.0E-103 | AF012872.1 | NT | Homo sapiens phosphatidylinositol 4-kinase 230 (pi4K230) mRNA, complete cds |
| 1964 | 15107 | 28207 | 1.02 | 1.0E-103 | 7657592 | NT | Homo sapiens smg GDS-ASSOCIATED PROTEIN (SMAP), mRNA |
| 2031 | 15172 | 28280 | 0.95 | 1.0E-103 | 4502428 | NT | Homo sapiens bone morphogenetic protein 8 (osteogenic protein 2) (BMP8) mRNA |
| 2031 | 15172 | 28281 | 0.95 | 1.0E-103 | 4502428 | NT | Homo sapiens bone morphogenetic protein 8 (osteogenic protein 2) (BMP8) mRNA |
| 2379 | 15510 | 28638 | 1.95 | 1.0E-103 | AU134991.1 | EST_HUMAN | AU134991 PLACE1 Homo sapiens cDNA clone PLACE1000965 5' |
| 2523 | 15648 | 28772 | 1.84 | 1.0E-103 | AF060568.1 | NT | Homo sapiens promyelocytic leukemia zinc finger protein (PLZF) gene, complete cds |
| 2685 | 15805 | 28921 | 1 | 1.0E-103 | N32770.1 | EST_HUMAN | yw91d08.s1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:259599 3' |
| 3137 | 16313 | | 2.76 | 1.0E-103 | BE744722.1 | EST_HUMAN | 601673113F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3834315 5' |
| 3467 | 16634 | 29653 | 5.33 | 1.0E-103 | AW298245.1 | EST_HUMAN | UI-H-BW0-ajt-h-11-0-UI.s1 NCI_CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2733165 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3526 | 16691 | 29700 | 0.95 | 1.0E-103 | AB040892.1 | NT | Homo sapiens mRNA for KIAA1459 protein, partial cds |
| 3850 | 17010 | | 5.46 | 1.0E-103 | AF023861.1 | NT | Macaca mulatta cyclophilin A mRNA, complete cds |
| 3894 | 17053 | 30053 | 0.9 | 1.0E-103 | AA485663.1 | EST_HUMAN | ab10d12.s1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:840407 3' similar to contains element LTR10 repetitive element ; |
| 3933 | 17092 | 30090 | 1.54 | 1.0E-103 | 11430876 | NT | Homo sapiens neuropilin 1 (NRP1), mRNA |
| 4110 | 17264 | 30264 | 4.63 | 1.0E-103 | T23683.1 | EST_HUMAN | seq340 b4HB3MA-Cot109+10-Bio Homo sapiens cDNA clone b4HB3MA-Cot109+10-Bio-7 3' |
| 5325 | 18438 | | 0.63 | 1.0E-103 | AA451616.1 | EST_HUMAN | zx43b04.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:789199 5' similar to TR:G292352 G292352 COLLAGEN CHAIN RH ; |
| 6056 | 19238 | 32563 | 0.9 | 1.0E-103 | BF569527.1 | EST_HUMAN | 602186023F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4310573 5' |
| 6063 | 19245 | 32571 | 1.67 | 1.0E-103 | AF179995.1 | NT | Homo sapiens septin 2 (SEP2) mRNA, partial cds |
| 6397 | 19566 | 32926 | 0.8 | 1.0E-103 | 11435053 | NT | Homo sapiens KIAA0440 protein (KIAA0440), mRNA |
| 6397 | 19566 | 32927 | 0.8 | 1.0E-103 | 11435063 | NT | Homo sapiens KIAA0440 protein (KIAA0440), mRNA |
| 6587 | 19748 | 33130 | 0.84 | 1.0E-103 | AW954566.1 | EST_HUMAN | EST366636 MAGE resequences, MAGC Homo sapiens cDNA |
| 6587 | 19748 | 33131 | 0.84 | 1.0E-103 | AW954566.1 | EST_HUMAN | EST366636 MAGE resequences, MAGC Homo sapiens cDNA |
| 6725 | 25831 | 33273 | 1.15 | 1.0E-103 | AA781442.1 | EST_HUMAN | aj26e03.s1 Soares_testis_NHT Homo sapiens cDNA clone 1391452 3' |
| 6768 | 19924 | 33318 | 0.91 | 1.0E-103 | AF053490.1 | NT | Homo sapiens glycine receptor alpha 2 subunit (GLRA2) gene, exon 4 |
| 6859 | 20011 | 33422 | 1.66 | 1.0E-103 | AI590071.1 | EST_HUMAN | tm58b05.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2162289 3' similar to TR:Q13769 Q13769 ANONYMOUS. ; |
| 6859 | 20011 | 33423 | 1.66 | 1.0E-103 | AI590071.1 | EST_HUMAN | tm58b05.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2162289 3' similar to TR:Q13769 Q13769 ANONYMOUS. ; |
| 6987 | 18506 | 31521 | 1.77 | 1.0E-103 | 5032282 | NT | Homo sapiens dystrophin (muscular dystrophy, Duchenne and Becker types), includes DXS142, DXS164, DXS206, DXS230, DXS239, DXS268, DXS269, DXS270, DXS272 (DMD), transcript variant Dp427m, mRNA |
| 6987 | 18506 | 31522 | 1.77 | 1.0E-103 | 5032282 | NT | Homo sapiens dystrophin (muscular dystrophy, Duchenne and Becker types), includes DXS142, DXS164, DXS206, DXS230, DXS239, DXS268, DXS269, DXS270, DXS272 (DMD), transcript variant Dp427m, mRNA |
| 7108 | 18535 | 31490 | 1.04 | 1.0E-103 | 11431100 | NT | Homo sapiens ribosomal protein L3-like (RPL3L), mRNA |
| 7178 | 20310 | 33753 | 0.98 | 1.0E-103 | AJ289880.1 | NT | Homo sapiens KIAA0851 gene (partial), XT3 gene and LZTFL1 gene |
| 7375 | 20454 | 33919 | 1.88 | 1.0E-103 | AW965776.1 | EST_HUMAN | EST377849 MAGE resequences, MAGI Homo sapiens cDNA |
| 7488 | 20563 | 34032 | 3.6 | 1.0E-103 | BE748158.1 | EST_HUMAN | 601571537F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:3838545 5' |
| 7951 | 21001 | 34511 | 4 | 1.0E-103 | AI590071.1 | EST_HUMAN | tm58b05.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2162289 3' similar to TR:Q13769 Q13769 ANONYMOUS. ; |
| 7951 | 21001 | 34512 | 4 | 1.0E-103 | AI590071.1 | EST_HUMAN | tm58b05.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2162289 3' similar to TR:Q13769 Q13769 ANONYMOUS. ; |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8484 | 21565 | 35101 | 0.59 | 1.0E-103 | T31080.1 | EST_HUMAN | EST27193 Human Brain Homo sapiens cDNA 5' end similar to None |
| 8822 | 21901 | 35440 | 1.05 | 1.0E-103 | AU140344.1 | EST_HUMAN | AU140344 PLACE2 Homo sapiens cDNA clone PLACE2000374 5' |
| 8822 | 21901 | 35441 | 1.05 | 1.0E-103 | AU140344.1 | EST_HUMAN | AU140344 PLACE2 Homo sapiens cDNA clone PLACE2000374 5' |
| 8900 | 21979 | 35518 | 1.34 | 1.0E-103 | BF109244.1 | EST_HUMAN | 7l60e03.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3525964 3' similar to SW:PTNF_HUMAN Q16825 PROTEIN-TYROSINE PHOSPHATASE D1 ; |
| 9307 | 22383 | 35934 | 3.18 | 1.0E-103 | 6005921 | NT | Homo sapiens triple functional domain (PTPRF interacting) (TRIO), mRNA |
| 9307 | 22383 | 35935 | 3.18 | 1.0E-103 | 6005921 | NT | Homo sapiens triple functional domain (PTPRF interacting) (TRIO), mRNA |
| 9349 | 22425 | 35980 | 0.97 | 1.0E-103 | AA581086.1 | EST_HUMAN | nd13c02.s1 NCI_CGAP_Ov1 Homo sapiens cDNA clone IMAGE:800162 3' similar to gb:L02426 26S PROTEASE SUBUNIT 4 (HUMAN); |
| 10263 | 23298 | 36896 | 2.04 | 1.0E-103 | Z37976.1 | NT | H.sapiens mRNA for latent transforming growth factor-beta binding protein (LTBP-2) |
| 10304 | 23339 | 36944 | 2.07 | 1.0E-103 | AW963676.1 | EST_HUMAN | EST375749 MAGE resequences, MAGH Homo sapiens cDNA |
| 10443 | 23478 | 37083 | 10.79 | 1.0E-103 | AI878956.1 | EST_HUMAN | au51g04.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2518326 5' similar to TR:O15046 O15046 KIAA0338 ; |
| 10878 | 23963 | 37591 | 1.52 | 1.0E-103 | BE549706.1 | EST_HUMAN | 7b41f03.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3230813 3' similar to gb:M69043 MAJOR HISTOCOMPATIBILITY COMPLEX ENHANCER-BINDING PROTEIN (HUMAN); |
| 10971 | 24051 | 37684 | 9.5 | 1.0E-103 | AI792759.1 | EST_HUMAN | ol02d06.y5 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1522283 5' similar to TR:Q62084 Q62084 PHOSPHOLIPASE C NEIGHBORING ; |
| 11072 | 24147 | 37785 | 2.45 | 1.0E-103 | 11424061 | NT | Homo sapiens AXL receptor tyrosine kinase (AXL), mRNA |
| 11072 | 24147 | 37786 | 2.45 | 1.0E-103 | 11424061 | NT | Homo sapiens AXL receptor tyrosine kinase (AXL), mRNA |
| 11083 | 24157 | 37794 | 2.4 | 1.0E-103 | AF149773.1 | NT | Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3 |
| 11083 | 24157 | 37795 | 2.4 | 1.0E-103 | AF149773.1 | NT | Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3 |
| 11656 | 24735 | 38426 | 2.67 | 1.0E-103 | AU136283.1 | EST_HUMAN | AU136283 PLACE1 Homo sapiens cDNA clone PLACE1003923 5' |
| 11731 | 23917 | 37542 | 4.1 | 1.0E-103 | L43610.1 | NT | Homo sapiens polycystic kidney disease (PKD1) gene, exons 27-30 |
| 11868 | 24953 |  | 1.71 | 1.0E-103 | AB024759.1 | NT | Homo sapiens TSA305 gene, exon 16 |
| 12044 | 25025 | 38730 | 2.26 | 1.0E-103 | BE644611.1 | EST_HUMAN | 7e68a10.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3287610 3' similar to contains MER29.t3 MER29 repetitive element ; |
| 12178 | 25138 |  | 3.4 | 1.0E-103 | AF224669.1 | NT | Homo sapiens mannosidase, beta A, lysosomal (MANBA) gene, and ubiquitin-conjugating enzyme E2D 3 (UBE2D3) genes, complete cds |
| 12209 | 25162 |  | 1.22 | 1.0E-103 | 11526291 | NT | Homo sapiens hypothetical protein FLJ20454 (FLJ20454), mRNA |
| 12414 | 26293 | 32083 | 1.71 | 1.0E-103 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 243 | 13465 | 26494 | 2.46 | 1.0E-104 | AL037549.3 | EST_HUMAN | DKFZp564H1072_r1 564 (synonym: hfbr2) Homo sapiens cDNA clone DKFZp564H1072 5' |
| 243 | 13465 | 26495 | 2.46 | 1.0E-104 | AL037549.3 | EST_HUMAN | DKFZp564H1072_r1 564 (synonym: hfbr2) Homo sapiens cDNA clone DKFZp564H1072 5' |
| 1937 | 15080 | 28182 | 1.92 | 1.0E-104 | 4502428 | NT | Homo sapiens bone morphogenetic protein 8 (osteogenic protein 2) (BMP8) mRNA |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2267 | 15400 | 28528 | 33,29 | 1.0E-104 | AA132975.1 | EST_HUMAN | zo22c06.s1 Stratagene colon (#937204) Homo sapiens cDNA clone IMAGE:587626 3' similar to gb:Z14116_rna1 CD59 GLYCOPROTEIN PRECURSOR (HUMAN); |
| 2277 | 15409 | 28540 | 4.55 | 1.0E-104 | BE744628.1 | EST_HUMAN | 601577460F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3926438 5' |
| 2442 | 15570 | 28698 | 9.73 | 1.0E-104 | BF334221.1 | EST_HUMAN | RC1-CT0249-110900-214-f12 CT0249 Homo sapiens cDNA |
| 2442 | 15570 | 28699 | 9.73 | 1.0E-104 | BF334221.1 | EST_HUMAN | RC1-CT0249-110900-214-f12 CT0249 Homo sapiens cDNA |
| 2506 | 15633 | 28753 | 2 | 1.0E-104 | 5031570 | NT | Homo sapiens ARP2 (actin-related protein 2, yeast) homolog (ACTR2), mRNA |
| 2934 | 16111 | 29125 | 17.99 | 1.0E-104 | M34671.1 | NT | Human lymphocytic antigen CD59/MEM43 mRNA, complete cds |
| 2983 | 16159 |  | 2.15 | 1.0E-104 | Y11151.1 | NT | H.sapiens gene encoding phenylpyruvate tautomerase II |
| 3337 | 16510 | 29626 | 0.99 | 1.0E-104 | AU133926.1 | EST_HUMAN | AU133926 OVARC1 Homo sapiens cDNA clone OVARC1000936 5' |
| 3478 | 16645 |  | 2.33 | 1.0E-104 | AA319436.1 | EST_HUMAN | EST21658 Adrenal gland tumor Homo sapiens cDNA 5' end |
| 3690 | 16852 | 29860 | 0.65 | 1.0E-104 | AB033102.1 | NT | Homo sapiens mRNA for KIAA1276 protein, partial cds |
| 3690 | 16852 | 29861 | 0.65 | 1.0E-104 | AB033102.1 | NT | Homo sapiens mRNA for KIAA1276 protein, partial cds |
| 4053 | 17209 | 30219 | 0.71 | 1.0E-104 | AB032998.1 | NT | Homo sapiens mRNA for KIAA1172 protein, partial cds |
| 4248 | 17394 | 30383 | 0.71 | 1.0E-104 | F11745.1 | EST_HUMAN | HSC31A071 normalized infant brain cDNA Homo sapiens cDNA clone c-31a07 |
| 4496 | 17636 | 30618 | 33.95 | 1.0E-104 | X02761.1 | NT | Human mRNA for fibronectin (FN precursor) |
| 4732 | 17867 | 30849 | 1.2 | 1.0E-104 | AF231920.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 4732 | 17867 | 30850 | 1.2 | 1.0E-104 | AF231920.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 6061 | 19243 | 32567 | 1.05 | 1.0E-104 | U43379.1 | NT | Human Down Syndrome region of chromosome 21 DNA |
| 6061 | 19243 | 32568 | 1.05 | 1.0E-104 | U43379.1 | NT | Human Down Syndrome region of chromosome 21 DNA |
| 6108 | 19288 | 32623 | 0.93 | 1.0E-104 | AB017332.1 | NT | Homo sapiens aik3 mRNA for Aurora/Ipl1-related kinase 3, complete cds |
| 6596 | 19756 | 33142 | 8.5 | 1.0E-104 | AI768797.1 | EST_HUMAN | wj03b12.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2401727 3' similar to TR:Q14145 Q14145 KIAA0132 PROTEIN. ;contains element LTR7 repetitive element ; |
| 6596 | 19756 | 33143 | 8.5 | 1.0E-104 | AI768797.1 | EST_HUMAN | wj03b12.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2401727 3' similar to TR:Q14145 Q14145 KIAA0132 PROTEIN. ;contains element LTR7 repetitive element ; |
| 6786 | 19941 | 33339 | 0.74 | 1.0E-104 | 7706512 | NT | Homo sapiens PDZ domain-containing guanine nucleotide exchange factor I (LOC51735), mRNA |
| 6942 | 20255 | 33692 | 3.39 | 1.0E-104 | BE314182.1 | EST_HUMAN | 601150451F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3503220 5' |
| 6942 | 20255 | 33693 | 3.39 | 1.0E-104 | BE314182.1 | EST_HUMAN | 601150451F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3503220 5' |
| 7373 | 20452 | 33917 | 2.01 | 1.0E-104 | 11425572 | NT | Homo sapiens adaptor-related protein complex 2, beta 1 subunit (AP2B1), mRNA |
| 8796 | 21875 | 35414 | 0.87 | 1.0E-104 | BF509244.1 | EST_HUMAN | UI-H-BI4-aow-b-09-0-UI.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3086176 3' |
| 9368 | 22443 | 36004 | 2.41 | 1.0E-104 | BF448230.1 | EST_HUMAN | nad16g11.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3365948 3' |
| 9463 | 22520 | 36082 | 0.46 | 1.0E-104 | AA682308.1 | EST_HUMAN | zj98b05.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:462897 3' |
| 9484 | 22541 |  | 1.03 | 1.0E-104 | T74219.1 | EST_HUMAN | yc83f02.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:22440 5' |
| 9515 | 22580 | 36146 | 5 | 1.0E-104 | AF091395.1 | NT | Homo sapiens Trio isoform mRNA, complete cds |
| 9515 | 22580 | 36147 | 5 | 1.0E-104 | AF091395.1 | NT | Homo sapiens Trio isoform mRNA, complete cds |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9641 | 21084 | 34597 | 4.14 | 1.0E-104 | BF352841.1 | EST_HUMAN | IL3-HT0619-080900-249-F07 HT0619 Homo sapiens cDNA |
| 9641 | 21084 | 34598 | 4.14 | 1.0E-104 | BF352841.1 | EST_HUMAN | IL3-HT0619-080900-249-F07 HT0619 Homo sapiens cDNA |
| 9956 | 22994 | 36589 | 0.92 | 1.0E-104 | AW103848.1 | EST_HUMAN | xd76d02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2603523 3' similar to TR:Q24116 Q24116 HYPOTHETICAL 29.4 KD PROTEIN. ; |
| 9955 | 22994 | 36590 | 0.92 | 1.0E-104 | AW103848.1 | EST_HUMAN | xd76d02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2603523 3' similar to TR:Q24116 Q24116 HYPOTHETICAL 29.4 KD PROTEIN. ; |
| 10153 | 23190 | 36787 | 0.49 | 1.0E-104 | AF113514.1 | NT | Homo sapiens histone acetyltransferase MORF mRNA, complete cds |
| 10298 | 23333 | 36937 | 3.16 | 1.0E-104 | BE791713.1 | EST_HUMAN | 601581503F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3935977 5' |
| 10298 | 23333 | 36938 | 3.16 | 1.0E-104 | BE791713.1 | EST_HUMAN | 601581503F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3935977 5' |
| 10611 | 23646 | 37253 | 1.49 | 1.0E-104 | AV728070.1 | EST_HUMAN | AV728070 HTC Homo sapiens cDNA clone HTCBYA07 5' |
| 10657 | 23691 | 37301 | 4.47 | 1.0E-104 | AU130765.1 | EST_HUMAN | AU130765 NT2RP3 Homo sapiens cDNA clone NT2RP3001398 5' |
| 10757 | 23790 | 37407 | 0.54 | 1.0E-104 | AA931321.1 | EST_HUMAN | oo06a10.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1565370 3' |
| 10757 | 23790 | 37408 | 0.54 | 1.0E-104 | AA931321.1 | EST_HUMAN | oo06a10.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1566370 3' |
| 10774 | 23807 | 37430 | 5.4 | 1.0E-104 | U66535.1 | NT | Human beta4-integrin (ITGB4) gene, exons 19,20,21,22,23,24 and 25 |
| 10791 | 23824 |  | 0.74 | 1.0E-104 | 11427757 | NT | Homo sapiens KIAA0649 gene product (KIAA0649), mRNA |
| 11577 | 24632 | 38310 | 44.86 | 1.0E-104 | BE720191.1 | EST_HUMAN | RC0-HT0885-310700-021-b09 HT0885 Homo sapiens cDNA |
| 11577 | 24632 | 38311 | 44.86 | 1.0E-104 | BE720191.1 | EST_HUMAN | RC0-HT0885-310700-021-b09 HT0885 Homo sapiens cDNA |
| 11611 | 24663 | 38350 | 4.1 | 1.0E-104 | BF684288.1 | EST_HUMAN | 602141215F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4302607 5' |
| 12082 | 25062 | 38768 | 46.12 | 1.0E-104 | 11434729 | NT | Homo sapiens ribosomal protein S6 kinase, 90kD, polypeptide 5 (RPS6KA5), mRNA |
| 13073 | 25702 |  | 1.32 | 1.0E-104 | BE393892.1 | EST_HUMAN | 601312181F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3658676 5' |
| 289 | 15981 | 26541 | 2.57 | 1.0E-105 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 438 | 13238 | 26238 | 6.69 | 1.0E-105 | 4505150 | NT | Homo sapiens Meis1 (mouse) homolog (MEIS1) mRNA |
| 607 | 13796 | 26815 | 2.51 | 1.0E-105 | AF032897.1 | NT | Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds |
| 607 | 13796 | 26816 | 2.51 | 1.0E-105 | AF032897.1 | NT | Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds |
| 1865 | 15011 | 28118 | 10.24 | 1.0E-105 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 1979 | 15122 | 28223 | 2.39 | 1.0E-105 | D50918.1 | NT | Human mRNA for KIAA0128 gene, partial cds |
| 2263 | 15396 | 28524 | 3.06 | 1.0E-105 | AA318369.1 | EST_HUMAN | EST20609 Spleen I Homo sapiens cDNA 5' end similar to autoimmune antigen Ku, p70/p80 subunit |
| 2398 | 15529 |  | 1.18 | 1.0E-105 | BE891766.1 | EST_HUMAN | 601434491F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3919611 5' |
| 2784 | 15900 |  | 0.98 | 1.0E-105 | AA584808.1 | EST_HUMAN | no10d05.s1 NCI_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1100265 3' |
| 3071 | 16247 |  | 2.79 | 1.0E-105 | AJ229041.1 | NT | Homo sapiens 959 kb contig between AML1 and CBR1 on chromosome 21q22; segment 1/3 |
| 3432 | 16600 | 29618 | 0.86 | 1.0E-105 | 7304922 | NT | Homo sapiens bromodomain adjacent to zinc finger domain, 2B (BAZ2B), mRNA |
| 3432 | 16600 | 29619 | 0.86 | 1.0E-105 | 7304922 | NT | Homo sapiens bromodomain adjacent to zinc finger domain, 2B (BAZ2B), mRNA |
| 4213 | 17362 | 30350 | 2.23 | 1.0E-105 | AW961688.1 | EST_HUMAN | EST373761 MAGE resequences, MAGG Homo sapiens cDNA |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5053 | 18181 | | 5.34 | 1.0E-105 | AL163208.2 | NT | Homo sapiens chromosome 21 segment HS21C008 |
| 5259 | 18378 | 31344 | 1.08 | 1.0E-105 | AB020673.1 | NT | Homo sapiens mRNA for KIAA0866 protein, complete cds |
| 5445 | 18645 | 31623 | 1.18 | 1.0E-105 | AF016704.1 | NT | Homo sapiens E6-AP ubiquitin-protein ligase (UBE3A) gene, exon 2 |
| 6513 | 18711 | | 1.12 | 1.0E-105 | 11420134 | NT | Homo sapiens Retina-derived POU-domain factor-1 (RPF-1), mRNA |
| 7045 | 20098 | 33513 | 1.44 | 1.0E-105 | BF314302.1 | EST_HUMAN | 601901028F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4130334 5' |
| 7045 | 20098 | 33514 | 1.44 | 1.0E-105 | BF314302.1 | EST_HUMAN | 601901028F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4130334 5' |
| 7121 | 18547 | 31458 | 3.78 | 1.0E-105 | 11419196 | NT | Homo sapiens GTPase activating protein-like (GAPL), mRNA |
| 7121 | 18547 | 31459 | 3.78 | 1.0E-105 | 11419196 | NT | Homo sapiens GTPase activating protein-like (GAPL), mRNA |
| 7167 | 20300 | 33743 | 0.72 | 1.0E-105 | AW951634.1 | EST_HUMAN | EST363689 MAGE resequences, MAGB Homo sapiens cDNA |
| 7436 | 20513 | 33986 | 0.72 | 1.0E-105 | BE902616.1 | EST_HUMAN | 601677279F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3960019 5' |
| 8043 | 21126 | 34647 | 0.93 | 1.0E-105 | X12556.1 | NT | Human mRNA for dbl proto-oncogene |
| 8217 | 21299 | 34820 | 11.05 | 1.0E-105 | T05087.1 | EST_HUMAN | EST02975 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBCR32 |
| 8592 | 21673 | 35211 | 1.63 | 1.0E-105 | AW007194.1 | EST_HUMAN | ws50c10.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2500626 3' similar to SW:ACSA_PENCH P36333 ACETYL-COENZYME A SYNTHETASE ; |
| 9128 | 22207 | 35750 | 0.82 | 1.0E-105 | AW840817.1 | EST_HUMAN | RC1-CN0008-070100-011-e05 CN0008 Homo sapiens cDNA |
| 9250 | 22327 | 35874 | 2.51 | 1.0E-105 | AW016879.1 | EST_HUMAN | UI-H-BI0p-abl-b-12-0-UI.s1 NCI_CGAP_Sub2 Homo sapiens cDNA clone IMAGE:2711782 3' |
| 9404 | 22478 | 36041 | 0.83 | 1.0E-105 | AW882372.1 | EST_HUMAN | QV2-OT0062-140300-083-d09 OT0062 Homo sapiens cDNA |
| 9404 | 22478 | 36042 | 0.83 | 1.0E-105 | AW882372.1 | EST_HUMAN | QV2-OT0062-140300-083-d09 OT0062 Homo sapiens cDNA |
| 9767 | 22764 | 36333 | 0.75 | 1.0E-105 | BE867793.1 | EST_HUMAN | 601443755F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847884 5' |
| 9767 | 22764 | 36334 | 0.75 | 1.0E-105 | BE867793.1 | EST_HUMAN | 601443755F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847884 5' |
| 11173 | 24243 | 37876 | 4.82 | 1.0E-105 | AF254822.1 | NT | Homo sapiens SMARCA4 isoform (SMARCA4) gene, complete cds, alternatively spliced |
| 11506 | 24564 | 38241 | 1.42 | 1.0E-106 | D63548.1 | NT | Homo sapiens COL4A6 gene for a6(IV) collagen, exon 31 |
| 11559 | 24614 | 38293 | 1.85 | 1.0E-106 | 7705936 | NT | Homo sapiens Ran binding protein 11 (LOC51194), mRNA |
| 11887 | 24875 | 38572 | 2.52 | 1.0E-105 | AW027554.1 | EST_HUMAN | wv74f07.x1 Soares_thymus_NHFTh Homo sapiens cDNA clone IMAGE:2535301 3' similar to TR:P87892 P87892 PROTEASE ; |
| 11972 | 24957 | 38659 | 1.48 | 1.0E-105 | BF430921.1 | EST_HUMAN | 7o18c10.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:3574291 3' similar to TR:P97680 P97680 RIN1. ; |
| 12111 | 25091 | 38794 | 1.3 | 1.0E-105 | AF218896.1 | NT | Homo sapiens attractin precursor (ATRN) gene, exon 8 |
| 155 | 13380 | | 0.88 | 1.0E-106 | AW503208.1 | EST_HUMAN | UI-HF-BN0-akt-g-07-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078348 5' |
| 210 | 13433 | 26464 | 5.14 | 1.0E-106 | AI565065.1 | EST_HUMAN | tq79c01.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2215008 3' |
| 555 | 13748 | 26774 | 1.89 | 1.0E-106 | AW965556.1 | EST_HUMAN | EST377629 MAGE resequences, MAGI Homo sapiens cDNA |
| 620 | 13807 | 26828 | 0.8 | 1.0E-106 | J00146.1 | NT | Human dihydrofolate reductase pseudogene (psi-hd1) |
| 621 | 13807 | 26828 | 1.13 | 1.0E-106 | J00146.1 | NT | Human dihydrofolate reductase pseudogene (psi-hd1) |
| 1554 | 14707 | 27787 | 8.84 | 1.0E-106 | AF145712.1 | NT | Homo sapiens soluble neuropilin-1 mRNA, complete cds |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1736 | 14885 | 27978 | 7.83 | 1.0E-106 | U48724.1 | NT | Human epidermal growth factor receptor (EGFR) precursor-mRNA, exon 4, partial cds |
| 1757 | 14906 | 28000 | 1.33 | 1.0E-106 | U04510.1 | NT | Homo sapiens type IV collagen alpha 5 chain (COL4A5) gene, exon 41 |
| 1846 | 14892 | 28093 | 5.51 | 1.0E-106 | AA527446.1 | EST_HUMAN | ng41c05.s1 NCI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:937352 3' similar to contains element LTR3 repetitive element ; |
| 1846 | 14992 | 28094 | 5.51 | 1.0E-106 | AA527446.1 | EST_HUMAN | ng41c05.s1 NCI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:937352 3' similar to contains element LTR3 repetitive element ; |
| 2191 | 15326 | 28461 | 1.94 | 1.0E-106 | BE144286.1 | EST_HUMAN | MR0-HT0165-140200-008-d10 HT0165 Homo sapiens cDNA |
| 2391 | 15522 | 28651 | 3.62 | 1.0E-106 | 4504184 | NT | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 2574 | 15699 | 28821 | 2.19 | 1.0E-106 | AF003528.1 | NT | Homo sapiens X-linked anhidroitic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 2667 | 15788 | 28904 | 1.93 | 1.0E-106 | U64675.2 | NT | Homo sapiens sperm membrane protein BS-63 mRNA, complete cds |
| 2669 | 15790 | 28906 | 2.01 | 1.0E-106 | BE260201.1 | EST_HUMAN | 601149783F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3502461 5' |
| 2815 | 15929 | 29041 | 8.05 | 1.0E-106 | AI276526.1 | EST_HUMAN | ql76h10.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1878307 3' |
| 2886 | 14617 | 27700 | 1.84 | 1.0E-106 | 4504184 | NT | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 2886 | 14617 | 27701 | 1.84 | 1.0E-106 | 4504184 | NT | Homo sapiens glutathione S-transferase theta 1 (GSTT1), mRNA |
| 2939 | 16116 | 29128 | 1.18 | 1.0E-106 | BE384296.1 | EST_HUMAN | 601272675F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3613818 5' |
| 3007 | 16182 | 29204 | 5.7 | 1.0E-106 | AB037747.1 | NT | Homo sapiens mRNA for KIAA1326 protein, partial cds |
| 3007 | 16182 | 29205 | 5.7 | 1.0E-106 | AB037747.1 | NT | Homo sapiens mRNA for KIAA1326 protein, partial cds |
| 3248 | 16422 | 29438 | 2.5 | 1.0E-106 | 8922965 | NT | Homo sapiens hypothetical protein FLJ11273 (FLJ11273), mRNA |
| 3248 | 16422 | 29439 | 2.5 | 1.0E-106 | 8922965 | NT | Homo sapiens hypothetical protein FLJ11273 (FLJ11273), mRNA |
| 3461 | 16628 | 29648 | 1.04 | 1.0E-106 | AB008681.1 | NT | Homo sapiens gene for activin receptor typo IIB, complete cds |
| 3527 | 16692 | 29701 | 1.07 | 1.0E-106 | AB033104.1 | NT | Homo sapiens mRNA for KIAA1278 protein, partial cds |
| 3527 | 16692 | 29702 | 1.07 | 1.0E-106 | AB033104.1 | NT | Homo sapiens mRNA for KIAA1278 protein, partial cds |
| 4149 | 17301 | 30293 | 9.2 | 1.0E-106 | AW974650.1 | EST_HUMAN | EST386875 MAGE resequences, MAGN Homo sapiens cDNA |
| 4149 | 17301 | 30294 | 9.2 | 1.0E-106 | AW974650.1 | EST_HUMAN | EST386875 MAGE resequences, MAGN Homo sapiens cDNA |
| 4723 | 17858 | 30840 | 2.27 | 1.0E-106 | BE144286.1 | EST_HUMAN | MR0-HT0165-140200-008-d10 HT0165 Homo sapiens cDNA |
| 5485 | 18684 | 31701 | 2.95 | 1.0E-106 | AA781155.1 | EST_HUMAN | aj24b09.s1 Soares_testis_NHT Homo sapiens cDNA clone 1391225 3' similar to gb:X12433 PROTEIN PHPS1-2 (HUMAN); |
| 6976 | 19161 | 32480 | 0.95 | 1.0E-106 | AU130113.1 | EST_HUMAN | AU130113 NT2RP3 Homo sapiens cDNA clone NT2RP3000274 5' |
| 5976 | 19161 | 32481 | 0.95 | 1.0E-106 | AU130113.1 | EST_HUMAN | AU130113 NT2RP3 Homo sapiens cDNA clone NT2RP3000274 5' |
| 6026 | 19209 | 32529 | 0.61 | 1.0E-106 | AA434168.1 | EST_HUMAN | zw28d12.s1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:770615 3' |
| 6116 | 19296 | 32631 | 1 | 1.0E-106 | AU143428.1 | EST_HUMAN | AU143428 Y79AA1 Homo sapiens cDNA clone Y79AA1001912 5' |
| 6116 | 19296 | 32632 | 1 | 1.0E-106 | AU143428.1 | EST_HUMAN | AU143428 Y79AA1 Homo sapiens cDNA clone Y79AA1001912 5' |
| 6227 | 19402 | 32752 | 8.39 | 1.0E-106 | BF679574.1 | EST_HUMAN | 602154012F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4295067 5' |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6336 | 19507 | 32864 | 0.81 | 1.0E-106 | BE897112.1 | EST_HUMAN | 601439670F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924641 5' |
| 6526 | 19507 | 32864 | 0.66 | 1.0E-106 | BE897112.1 | EST_HUMAN | 601439670F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924641 5' |
| 6549 | 19711 | 33087 | 16.91 | 1.0E-106 | 11545913 | NT | Homo sapiens xylosyltransferase II (XT2), mRNA |
| 6549 | 19711 | 33088 | 15.91 | 1.0E-106 | 11545913 | NT | Homo sapiens xylosyltransferase II (XT2), mRNA |
| 7528 | 20601 | 34075 | 5.69 | 1.0E-106 | AA663779.1 | EST_HUMAN | ae72e07.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:969732 3' similar to gb:X65873 KINESIN HEAVY CHAIN (HUMAN); |
| 7582 | 20654 | 34130 | 4.17 | 1.0E-106 | 11429617 | NT | Homo sapiens XPMC2 protein (LOC57109), mRNA |
| 7672 | 20738 | 34216 | 1.64 | 1.0E-106 | BE292722.1 | EST_HUMAN | 601106736F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2988345 5' |
| 7787 | 20843 | 34335 | 8.06 | 1.0E-106 | 11425503 | NT | Homo sapiens sorting nexin 11 (SNX11), mRNA |
| 7787 | 20843 | 34336 | 8.06 | 1.0E-106 | 11425503 | NT | Homo sapiens sorting nexin 11 (SNX11), mRNA |
| 7994 | 21044 | 34556 | 0.6 | 1.0E-106 | AU116850.1 | EST_HUMAN | AU116850 HEMBA1 Homo sapiens cDNA clone HEMBA1000129 5' |
| 8173 | 21255 | 34776 | 3.62 | 1.0E-106 | BE741408.1 | EST_HUMAN | 601594331F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3948463 5' |
| 8173 | 21255 | 34777 | 3.62 | 1.0E-106 | BE741408.1 | EST_HUMAN | 601594331F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3948463 5' |
| 8368 | 21449 | 34972 | 2.21 | 1.0E-106 | AI523066.1 | EST_HUMAN | ar68a07.x1 Barstead aorta HPLRB6 Homo sapiens cDNA clone IMAGE:2127732 3' similar to gb:X06233 CALGRANULIN B (HUMAN); |
| 8830 | 21909 | 35447 | 0.64 | 1.0E-106 | BE387950.1 | EST_HUMAN | 601282717F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3604493 5' |
| 8830 | 21909 | 35448 | 0.64 | 1.0E-106 | BE387950.1 | EST_HUMAN | 601282717F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3604493 5' |
| 8903 | 21982 | 35522 | 2.77 | 1.0E-106 | AI654123.1 | EST_HUMAN | ty62a05.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2283632 3' similar to SW:ICA6_HUMAN Q05084 69 KD ISLET CELL AUTOANTIGEN ; |
| 9252 | 22329 | 35876 | 0.83 | 1.0E-106 | AW838831.1 | EST_HUMAN | CM4-LT0059-150200-096-e06 LT0059 Homo sapiens cDNA |
| 9348 | 22424 | 35978 | 2.34 | 1.0E-106 | AA825307.1 | EST_HUMAN | oc67e08.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1354790 3' |
| 9348 | 22424 | 35979 | 2.34 | 1.0E-106 | AA825307.1 | EST_HUMAN | oc67e08.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1354790 3' |
| 9486 | 22543 | 36106 | 0.77 | 1.0E-106 | AI750447.1 | EST_HUMAN | cn03a04.y1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn03a04 random |
| 9629 | 22684 | 36255 | 1.94 | 1.0E-106 | AI479569.1 | EST_HUMAN | tm41f02.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2160699 3' similar to contains MSR1.t3 TAR1 PTR5 repetitive element ; |
| 9629 | 22684 | 36256 | 1.94 | 1.0E-106 | AI479569.1 | EST_HUMAN | tm41f02.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2160699 3' similar to contains MSR1.t3 TAR1 PTR5 repetitive element ; |
| 10205 | 23241 | 36832 | 0.6 | 1.0E-106 | BE389234.1 | EST_HUMAN | 601282367F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3604217 5' |
| 10289 | 23324 | 36926 | 1.09 | 1.0E-106 | BF027310.1 | EST_HUMAN | 601671674F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3954403 5' |
| 10289 | 23324 | 36927 | 1.09 | 1.0E-106 | BF027310.1 | EST_HUMAN | 601671674F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3954403 5' |
| 10446 | 23481 | 37088 | 10.7 | 1.0E-106 | AA604417.1 | EST_HUMAN | np57b10.s1 NCI_CGAP_Br2 Homo sapiens cDNA clone IMAGE:1130395 3' |
| 10446 | 23481 | 37089 | 10.7 | 1.0E-106 | AA604417.1 | EST_HUMAN | np57b10.s1 NCI_CGAP_Br2 Homo sapiens cDNA clone IMAGE:1130395 3' |
| 10492 | 23527 | 37136 | 1.83 | 1.0E-106 | AW363299.1 | EST_HUMAN | RC0-CT0318-201199-031-a11 CT0318 Homo sapiens cDNA |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10497 | 23532 | 37141 | 0.66 | 1.0E-106 | 11436432 | NT | Homo sapiens multimerin (MMRN), mRNA |
| 10497 | 23532 | 37142 | 0.66 | 1.0E-106 | 11436432 | NT | Homo sapiens multimerin (MMRN), mRNA |
| 10678 | 23712 | 37320 | 0.65 | 1.0E-106 | AL039886.1 | EST_HUMAN | DKFZp434F0712_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434F0712 5' |
| 10807 | 23840 | 37464 | 4.26 | 1.0E-106 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 11135 | 24207 | 37832 | 4.81 | 1.0E-106 | BF032755.1 | EST_HUMAN | 601453461F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3857366 5' |
| 11135 | 24207 | 37833 | 4.81 | 1.0E-106 | BF032755.1 | EST_HUMAN | 601453461F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3857366 5' |
| 11317 | 24380 | 38025 | 2.06 | 1.0E-106 | J05200.1 | NT | Human ryanodine receptor mRNA, complete cds |
| 11317 | 24380 | 38026 | 2.06 | 1.0E-106 | J05200.1 | NT | Human ryanodine receptor mRNA, complete cds |
| 11694 | 24692 | 38383 | 1.35 | 1.0E-106 | BE257385.1 | EST_HUMAN | 601109219F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3349997 5' |
| 11837 | 24826 | 38514 | 1.89 | 1.0E-106 | BE010882.1 | EST_HUMAN | RC5-BN0192-100500-021-B02 BN0192 Homo sapiens cDNA |
| 11837 | 24826 | 38515 | 1.89 | 1.0E-106 | BE010882.1 | EST_HUMAN | RC5-BN0192-100500-021-B02 BN0192 Homo sapiens cDNA |
| 12253 | 25946 |  | 4.3 | 1.0E-106 | AW410405.1 | EST_HUMAN | fh05h11.x1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2961644 5' |
| 12484 | 25336 | 32059 | 1.97 | 1.0E-106 | BE894488.1 | EST_HUMAN | 601433087F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918524 5' |
| 12484 | 25336 | 32060 | 1.97 | 1.0E-106 | BE894488.1 | EST_HUMAN | 601433087F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918524 5' |
| 12717 | 25477 |  | 3.71 | 1.0E-106 | BE696905.1 | EST_HUMAN | RC1-CT0249-090800-024-d05 CT0249 Homo sapiens cDNA |
| 244 | 13466 |  | 4.52 | 1.0E-107 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 275 | 13493 |  | 0.9 | 1.0E-107 | X60459.1 | NT | Human IFNAR gene for interferon alpha/beta receptor |
| 637 | 13822 |  | 1.03 | 1.0E-107 | 4826863 | NT | Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA |
| 647 | 13832 | 26858 | 2.34 | 1.0E-107 | AF165103.1 | NT | Homo sapiens NY-REN-25 antigen mRNA, partial cds |
| 836 | 14014 | 27069 | 1.02 | 1.0E-107 | X60459.1 | NT | Human IFNAR gene for interferon alpha/beta receptor |
| 909 | 14084 | 27149 | 1.38 | 1.0E-107 | X60459.1 | NT | Human IFNAR gene for interferon alpha/beta receptor |
| 991 | 14163 | 27223 | 9.71 | 1.0E-107 | AF154121.1 | NT | Homo sapiens sodium-dependent high-affinity dicarboxylate transporter (NADC3) mRNA, complete cds |
| 1307 | 14463 | 27531 | 1.06 | 1.0E-107 | AB032253.1 | NT | Homo sapiens BAZ1B mRNA for bromodomain adjacent to zinc finger domain 1B, complete cds |
| 1600 | 14753 | 27836 | 3.81 | 1.0E-107 | BF087405.1 | EST_HUMAN | QV2-HT0540-120900-358-a05 HT0540 Homo sapiens cDNA |
| 1791 | 14940 | 28033 | 6.42 | 1.0E-107 | AF136275.1 | NT | Homo sapiens cathepsin Z precursor (CTSZ) gene, exon 3 |
| 1887 | 15031 | 28138 | 1.52 | 1.0E-107 | AB007922.2 | NT | Homo sapiens mRNA for KIAA0453 protein, partial cds |
| 1887 | 15031 | 28139 | 1.52 | 1.0E-107 | AB007922.2 | NT | Homo sapiens mRNA for KIAA0453 protein, partial cds |
| 2282 | 15414 | 28546 | 3.77 | 1.0E-107 | U13729.1 | NT | Human dipeptidyl peptidase IV (CD26) gene, exon 20 |
| 2435 | 15563 | 28691 | 4.03 | 1.0E-107 | AW842451.1 | EST_HUMAN | PM1-CN0031-190100-001-d03 CN0031 Homo sapiens cDNA |
| 2435 | 15563 | 28692 | 4.03 | 1.0E-107 | AW842451.1 | EST_HUMAN | PM1-CN0031-190100-001-d03 CN0031 Homo sapiens cDNA |
| 3072 | 16248 | 29268 | 6.14 | 1.0E-107 | AW842451.1 | EST_HUMAN | PM1-CN0031-190100-001-d03 CN0031 Homo sapiens cDNA |
| 3072 | 16248 | 29269 | 6.14 | 1.0E-107 | AW842451.1 | EST_HUMAN | PM1-CN0031-190100-001-d03 CN0031 Homo sapiens cDNA |
| 3169 | 16344 | 29352 | 2.9 | 1.0E-107 | 5902097 | NT | Homo sapiens SMT3 (suppressor of mif two 3, yeast) homolog 2 (SMT3H2), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3931 | 17090 | 30087 | 4.89 | 1.0E-107 | AF020671.1 | NT | Homo sapiens myotubularin (MTM1) gene, exon 9 |
| 5742 | 18935 | 32235 | 0.64 | 1.0E-107 | AW969038.1 | EST_HUMAN | EST381115 MAGE resequences, MAGK Homo sapiens cDNA |
| 5986 | 19171 | 32493 | 2.71 | 1.0E-107 | BE867469.1 | EST_HUMAN | 601442558F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3846494 5' |
| 7520 | 20593 | 34067 | 1.33 | 1.0E-107 | AW503913.1 | EST_HUMAN | UI-HF-BN0-alf-c-08-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3079310 5' |
| 7520 | 20593 | 34068 | 1.33 | 1.0E-107 | AW503913.1 | EST_HUMAN | UI-HF-BN0-alf-c-08-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3079310 5' |
| 7698 | 20763 | 34247 | 1.36 | 1.0E-107 | AI765078.1 | EST_HUMAN | wh56h04.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2384791 3' |
| 7909 | 20961 | 34467 | 0.59 | 1.0E-107 | AJ404468.1 | NT | Homo sapiens mRNA for dynein heavy chain (DNAH9 gene) |
| 7909 | 20961 | 34468 | 0.59 | 1.0E-107 | AJ404468.1 | NT | Homo sapiens mRNA for dynein heavy chain (DNAH9 gene) |
| 9587 | 22729 | 36299 | 0.99 | 1.0E-107 | AU122469.1 | EST_HUMAN | AU122469 MAMMA1 Homo sapiens cDNA clone MAMMA1002433 5' |
| 10889 | 23973 | 37604 | 1.92 | 1.0E-107 | BE168726.1 | EST_HUMAN | QV1-HT0516-140300-107-c10 HT0516 Homo sapiens cDNA |
| 10944 | 24026 | 37662 | 2.96 | 1.0E-107 | AI392850.1 | EST_HUMAN | tg10d06.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:2108363 3' similar to SW:AACT_DICDI P05095 ALPHA-ACTININ 3, NON MUSCULAR ; |
| 11189 | 24258 | 37894 | 1.58 | 1.0E-107 | L49141.1 | NT | Homo sapiens neuroendocrine-specific protein (NSP) gene, exon 4 |
| 11202 | 24271 | 37907 | 2.3 | 1.0E-107 | BF666511.1 | EST_HUMAN | 602123963F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4281039 5' |
| 11603 | 24656 | 38341 | 3.91 | 1.0E-107 | BE540550.1 | EST_HUMAN | 601066681F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3452829 5' |
| 11676 | 23904 | 37526 | 4.29 | 1.0E-107 | 11419701 | NT | Homo sapiens HSPC049 protein (HSPC049), mRNA |
| 11676 | 23904 | 37527 | 4.29 | 1.0E-107 | 11419701 | NT | Homo sapiens HSPC049 protein (HSPC049), mRNA |
| 12322 | 26100 | | 7.14 | 1.0E-107 | AA001415.1 | EST_HUMAN | ze45e01.s1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:361944 3' similar to contains THR.b1 THR repetitive element ; |
| 13211 | 25790 | 31920 | 1.24 | 1.0E-107 | BE798189.1 | EST_HUMAN | 601582652F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3937188 5' |
| 977 | 14160 | 27210 | 1.72 | 1.0E-108 | BE296042.1 | EST_HUMAN | 601177018F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532348 5' |
| 1294 | 14450 | 27516 | 2.41 | 1.0E-108 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 2140 | 15276 | 28398 | 1.02 | 1.0E-108 | BF026728.1 | EST_HUMAN | 601671914F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3954939 5' |
| 2407 | 15538 | 28665 | 12.11 | 1.0E-108 | AI686040.1 | EST_HUMAN | tt91e10.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2248938 3' similar to gb:M14219 BONE PROTEOGLYCAN II PRECURSOR (HUMAN); |
| 2407 | 15538 | 28666 | 12.11 | 1.0E-108 | AI686040.1 | EST_HUMAN | tt91e10.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2248938 3' similar to gb:M14219 BONE PROTEOGLYCAN II PRECURSOR (HUMAN); |
| 2499 | 15626 | 28746 | 11.96 | 1.0E-108 | BE206694.1 | EST_HUMAN | bb25b10.x1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:2963899 3' similar to gb:X53777 60S RIBOSOMAL PROTEIN L23 (HUMAN); gb:J05277 Mouse hexokinase mRNA, complete cds (MOUSE); |
| 3025 | 16201 | 29224 | 0.64 | 1.0E-108 | 6005979 | NT | Homo sapiens Kruppel-like factor 8 (KLF8), mRNA |
| 3430 | 16598 | 29614 | 0.64 | 1.0E-108 | AF032897.1 | NT | Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds |
| 3430 | 16598 | 29615 | 0.64 | 1.0E-108 | AF032897.1 | NT | Homo sapiens potassium channel subunit (HERG-3) mRNA, complete cds |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4273 | 17418 | 30406 | 1.57 | 1.0E-108 | AW664438.1 | EST_HUMAN | hl12a11.x1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2972060 3' similar to SW:3BP1_MOUSE P55194 SH3-BINDING PROTEIN 3BP-1. ; |
| 4647 | 17783 | 30765 | 2.62 | 1.0E-108 | U72961.1 | NT | Human hepatocyte nuclear factor 4-alpha gene, exon 2 |
| 4647 | 17783 | 30766 | 2.62 | 1.0E-108 | U72961.1 | NT | Human hepatocyte nuclear factor 4-alpha gene, exon 2 |
| 4927 | 18057 | 31040 | 3.37 | 1.0E-108 | 7661979 | NT | Homo sapiens KIAA0187 gene product (KIAA0187), mRNA |
| 5037 | 18165 | 31141 | 0.63 | 1.0E-108 | AW504799.1 | EST_HUMAN | UI-HF-BN0-aln-e-04-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3080166 5' |
| 5063 | 18191 | 31166 | 3.18 | 1.0E-108 | AJ008005.1 | NT | Homo sapiens PSN1 gene, alternative transcript |
| 5596 | 18791 | 31839 | 1.24 | 1.0E-108 | AW384094.1 | EST_HUMAN | RC0-HT0372-241199-031-d03 HT0372 Homo sapiens cDNA |
| 5644 | 18838 | 31916 | 2.56 | 1.0E-108 | BE869016.1 | EST_HUMAN | 601444922F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3848980 5' |
| 5644 | 18838 | 31917 | 2.56 | 1.0E-108 | BE869016.1 | EST_HUMAN | 601444922F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3848980 5' |
| 6049 | 19232 | | 0.66 | 1.0E-108 | AF012623.1 | NT | Homo sapiens familial mental retardation protein 2 (FMR2) gene, exon 20 |
| 6125 | 19304 | 32644 | 0.74 | 1.0E-108 | BF334851.1 | EST_HUMAN | PM4-CT0403-240700-001-c10 CT0403 Homo sapiens cDNA |
| 6267 | 19441 | 32789 | 6.14 | 1.0E-108 | AF264717.1 | NT | Homo sapiens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP2 mRNA, complete cds |
| 6267 | 19441 | 32790 | 6.14 | 1.0E-108 | AF264717.1 | NT | Homo sapiens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP2 mRNA, complete cds |
| 6392 | 19561 | 32921 | 1.22 | 1.0E-108 | AJ133269.1 | NT | Homo sapiens caveolin-1/-2 locus, Contig1, D7S522, genes CAV2 (exons 1, 2a, and 2b), CAV1 (exons 1 and 2) |
| 6489 | 19304 | 32644 | 1.09 | 1.0E-108 | BF334851.1 | EST_HUMAN | PM4-CT0403-240700-001-c10 CT0403 Homo sapiens cDNA |
| 6753 | 19909 | 33302 | 0.64 | 1.0E-108 | AF016706.1 | NT | Homo sapiens E6-AP ubiquitin-protein ligase (UBE3A) gene, exon 4 |
| 6753 | 19909 | 33303 | 0.64 | 1.0E-108 | AF016706.1 | NT | Homo sapiens E6-AP ubiquitin-protein ligase (UBE3A) gene, exon 4 |
| 7308 | 20390 | 33850 | 4.52 | 1.0E-108 | 11431867 | NT | Homo sapiens G protein-coupled receptor, family C, group 5, member B (GPRC5B), mRNA |
| 7597 | 20667 | 34143 | 2.12 | 1.0E-108 | 4758333 | NT | Homo sapiens delta-6 fatty acid desaturase (FADSD6) mRNA |
| 7646 | 20715 | 34193 | 1.32 | 1.0E-108 | BE252607.1 | EST_HUMAN | 601113471F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3354064 5' |
| 7674 | 20739 | 34218 | 0.73 | 1.0E-108 | BF528912.1 | EST_HUMAN | 602043384F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4181037 5' |
| 7674 | 20739 | 34219 | 0.73 | 1.0E-108 | BF528912.1 | EST_HUMAN | 602043384F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4181037 5' |
| 8254 | 21336 | | 1.72 | 1.0E-108 | AF083500.1 | NT | Homo sapiens connective tissue growth factor-like protein precursor, mRNA, complete cds |
| 8306 | 21388 | 34910 | 0.61 | 1.0E-108 | AW408694.1 | EST_HUMAN | UI-HF-BM0-ads-e-12-0-UI.r1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3062878 5' |
| 8306 | 21388 | 34911 | 0.61 | 1.0E-108 | AW408694.1 | EST_HUMAN | UI-HF-BM0-ads-e-12-0-UI.r1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3062878 5' |
| 9247 | 22324 | 35869 | 0.77 | 1.0E-108 | AF203977.1 | NT | Homo sapiens ETS-family transcription factor EHF (EHF) mRNA, complete cds |
| 9287 | 22363 | 35912 | 0.46 | 1.0E-108 | N44974.1 | EST_HUMAN | yy35h10.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:273283 5' similar to PIR:A45773 A45773 kelch protein,.long form - fruit fly ; |
| 10847 | 23880 | 37500 | 1.08 | 1.0E-108 | 11428155 | NT | Homo sapiens similar to high-mobility group (nonhistone chromosomal) protein 4 (H. sapiens) (LOC63446), mRNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10904 | 21037 | 34549 | 2.09 | 1.0E-108 | BE535227.1 | EST_HUMAN | 601058769F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3445361 5' |
| 11066 | 18501 | 31537 | 2.67 | 1.0E-108 | Y12490.1 | NT | Homo sapiens mRNA for Golgi-associated microtubule-binding protein (GMAP-210) |
| 11319 | 24382 | 38027 | 1.35 | 1.0E-108 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 11549 | 24605 | 38283 | 3.46 | 1.0E-108 | AW966185.1 | EST_HUMAN | EST378258 MAGE resequences, MAGI Homo sapiens cDNA |
| 11605 | 24658 | 38343 | 1.71 | 1.0E-108 | AV708790.1 | EST_HUMAN | AV708790 ADC Homo sapiens cDNA clone ADCAEE03 5' |
| 11605 | 24658 | 38344 | 1.71 | 1.0E-108 | AV708790.1 | EST_HUMAN | AV708790 ADC Homo sapiens cDNA clone ADCAEE03 5' |
| 11652 | 24731 |  | 2.77 | 1.0E-108 | 11441465 | NT | Homo sapiens G protein-coupled receptor 48 (GPR48), mRNA |
| 11688 | 15538 | 28665 | 2.99 | 1.0E-108 | AI686040.1 | EST_HUMAN | tt91e10.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2248938 3' similar to gb:M14219 BONE PROTEOGLYCAN II PRECURSOR (HUMAN); |
| 11688 | 15538 | 28666 | 2.99 | 1.0E-108 | AI686040.1 | EST_HUMAN | tt91e10.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2248938 3' similar to gb:M14219 BONE PROTEOGLYCAN II PRECURSOR (HUMAN); |
| 11712 | 24752 | 38446 | 1.72 | 1.0E-108 | D63539.1 | NT | Homo sapiens COL4A6 gene for a6(IV) collagen, exon 23 |
| 12499 | 25344 | 32064 | 4.15 | 1.0E-108 | AK024447.1 | NT | Homo sapiens mRNA for FLJ00037 protein, partial cds |
| 12940 | 25618 |  | 5.09 | 1.0E-108 | BF346356.1 | EST_HUMAN | 602018571F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4154297 5' |
| 43 | 13281 | 26287 | 1.01 | 1.0E-109 | AW803116.1 | EST_HUMAN | IL2-UM0077-260400-079-D06 UM0077 Homo sapiens cDNA |
| 66 | 13303 | 26326 | 1.17 | 1.0E-109 | D86974.1 | NT | Human mRNA for KIAA0220 gene, partial cds |
| 225 | 13447 | 26475 | 3.34 | 1.0E-109 | 11422486 | NT | Homo sapiens hypothetical protein FLJ11316 (FLJ11316), mRNA |
| 236 | 13456 | 26482 | 2.77 | 1.0E-109 | 11438391 | NT | Homo sapiens reticulocalbin 1, EF-hand calcium binding domain (RCN1), mRNA |
| 479 | 13674 | 26705 | 2.28 | 1.0E-109 | 4507712 | NT | Homo sapiens tetratricopeptide repeat domain 2 (TTC2) mRNA |
| 611 | 13800 | 26820 | 14.77 | 1.0E-109 | AB023216.1 | NT | Homo sapiens mRNA for KIAA0999 protein, partial cds |
| 611 | 13800 | 26821 | 14.77 | 1.0E-109 | AB023216.1 | NT | Homo sapiens mRNA for KIAA0999 protein, partial cds |
| 1037 | 14205 | 27262 | 1.62 | 1.0E-109 | AL163249.2 | NT | Homo sapiens chromosome 21 segment HS21C049 |
| 1229 | 14389 | 27451 | 8.5 | 1.0E-109 | M28699.1 | NT | Homo sapiens nucleolar phosphoprotein B23 (NPM1) mRNA, complete cds |
| 1230 | 14389 | 27451 | 6.38 | 1.0E-109 | M28699.1 | NT | Homo sapiens nucleolar phosphoprotein B23 (NPM1) mRNA, complete cds |
| 1573 | 14726 | 27806 | 0.99 | 1.0E-109 | BE293673.1 | EST_HUMAN | 601186922F2 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2959636 5' |
| 1673 | 14726 | 27807 | 0.99 | 1.0E-109 | BE293673.1 | EST_HUMAN | 601186922F2 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2959636 5' |
| 1923 | 15066 | 28170 | 2.3 | 1.0E-109 | D13643.2 | NT | Homo sapiens mRNA for KIAA0018 protein, partial cds |
| 2314 | 15446 | 28580 | 5.46 | 1.0E-109 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 2326 | 16457 | 28589 | 3.65 | 1.0E-109 | Y17123.1 | NT | Homo sapiens SNF5/INI1 gene, exon 6 |
| 2687 | 15807 | 28923 | 19.35 | 1.0E-109 | AI022328.1 | EST_HUMAN | ow95a01.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1654536 3' similar to TR:O02197 O02197 CIRCULATING CATHODIC ANTIGEN. ; |
| 2687 | 15807 | 28924 | 19.35 | 1.0E-109 | AI022328.1 | EST_HUMAN | ow95a01.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1654536 3' similar to TR:O02197 O02197 CIRCULATING CATHODIC ANTIGEN. ; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2688 | 15808 | 28925 | 2.68 | 1.0E-109 | 4504206 | NT | Homo sapiens guanylate cyclase activator 1A (retina) (GUCA1A) mRNA |
| 3126 | 16301 | 29314 | 3.37 | 1.0E-109 | N85190.1 | EST_HUMAN | J2816F Human fetal heart, Lambda ZAP Express Homo sapiens cDNA clone J2816 5' similar to ZINC FINGER PROTEIN ZNF43 |
| 3475 | 16642 | 29661 | 2.08 | 1.0E-109 | AW893192.1 | EST_HUMAN | CM3-NN0009-190400-150-f10 NN0009 Homo sapiens cDNA |
| 3475 | 16642 | 29662 | 2.08 | 1.0E-109 | AW893192.1 | EST_HUMAN | CM3-NN0009-190400-150-f10 NN0009 Homo sapiens cDNA |
| 3606 | 16770 | 29785 | 1.1 | 1.0E-109 | AF240698.1 | NT | Homo sapiens retinol dehydrogenase homolog isoform-1 (RDH) mRNA, complete cds |
| 3945 | 17104 |  | 1.31 | 1.0E-109 | BE146144.1 | EST_HUMAN | MR0-HT0209-110400-108-e04 HT0209 Homo sapiens cDNA |
| 4264 | 17409 | 30395 | 4.35 | 1.0E-109 | AI655417.1 | EST_HUMAN | ts98e06.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2239330 3' similar to WP:F53A2.8 CE16100 ; |
| 4524 | 17663 | 30650 | 2.57 | 1.0E-109 | 4504206 | NT | Homo sapiens guanylate cyclase activator 1A (retina) (GUCA1A) mRNA |
| 4722 | 17857 | 30839 | 1.7 | 1.0E-109 | 7662083 | NT | Homo sapiens KIAA0377 gene product (KIAA0377), mRNA |
| 5165 | 18287 | 31252 | 0.72 | 1.0E-109 | BE293673.1 | EST_HUMAN | 601186922F2 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2959636 5' |
| 5165 | 18287 | 31253 | 0.72 | 1.0E-109 | BE293673.1 | EST_HUMAN | 601186922F2 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2959636 5' |
| 5361 | 18564 | 31480 | 0.67 | 1.0E-109 | AU137282.1 | EST_HUMAN | AU137282 PLACE1 Homo sapiens cDNA clone PLACE1006159 5' |
| 5374 | 18577 | 31445 | 0.92 | 1.0E-109 | BF673718.1 | EST_HUMAN | 602136446F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4272922 5' |
| 5428 | 18628 | 31604 | 2.92 | 1.0E-109 | 5174622 | NT | Homo sapiens placental protein 11 (serine proteinase) (P11) mRNA |
| 5724 | 18917 |  | 1.23 | 1.0E-109 | BE179356.1 | EST_HUMAN | RC1-HT0615-200400-022-d04 HT0615 Homo sapiens cDNA |
| 6050 | 25817 | 32556 | 1.23 | 1.0E-109 | BF379688.1 | EST_HUMAN | CM1-UT0038-060900-399-h07 UT0038 Homo sapiens cDNA |
| 6119 | 18917 |  | 1.41 | 1.0E-109 | BE179356.1 | EST_HUMAN | RC1-HT0615-200400-022-d04 HT0615 Homo sapiens cDNA |
| 6721 | 19876 | 33269 | 0.85 | 1.0E-109 | AI221385.1 | EST_HUMAN | qg86h08.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1842111 3' |
| 6907 | 20222 | 33651 | 0.69 | 1.0E-109 | 11024711 | NT | Homo sapiens myosin, heavy polypeptide 4, skeletal muscle (MYH4), mRNA |
| 6907 | 20222 | 33652 | 0.69 | 1.0E-109 | 11024711 | NT | Homo sapiens myosin, heavy polypeptide 4, skeletal muscle (MYH4), mRNA |
| 7389 | 20467 | 33933 | 0.67 | 1.0E-109 | AB046811.1 | NT | Homo sapiens mRNA for KIAA1591 protein, partial cds |
| 7738 | 20799 | 34288 | 3.75 | 1.0E-109 | 11432574 | NT | Homo sapiens AT-binding transcription factor 1 (ATBF1), mRNA |
| 7740 | 20801 | 34290 | 4.91 | 1.0E-109 | BF182707.1 | EST_HUMAN | 601809495F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:4040279 5' |
| 7740 | 20801 | 34291 | 4.91 | 1.0E-109 | BF182707.1 | EST_HUMAN | 601809495F1 NIH_MGC_18 Homo sapiens cDNA clone IMAGE:4040279 5' |
| 8366 | 21447 | 34970 | 1.35 | 1.0E-109 | AL049784.1 | NT | Novel human gene mapping to chomosome 13 |
| 8480 | 21561 | 35096 | 1.39 | 1.0E-109 | AW749130.1 | EST_HUMAN | PM0-BT0340-091299-002-e05 BT0340 Homo sapiens cDNA |
| 8857 | 21936 |  | 2.84 | 1.0E-109 | AA077498.1 | EST_HUMAN | 7B18H01 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B18H01 |
| 8932 | 22011 | 35549 | 4.36 | 1.0E-109 | BE787540.1 | EST_HUMAN | 601479417F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3882124 5' |
| 8932 | 22011 | 35550 | 4.36 | 1.0E-109 | BE787540.1 | EST_HUMAN | 601479417F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3882124 5' |
| 9177 | 22255 | 35797 | 0.57 | 1.0E-109 | BE145672.1 | EST_HUMAN | IL0-HT0205-071199-142-g01 HT0205 Homo sapiens cDNA |
| 9439 | 22513 | 36077 | 1.65 | 1.0E-109 | H84860.1 | EST_HUMAN | ys90g08.r1 Soares retina N2b5HR Homo sapiens cDNA clone IMAGE:222110 5' similar to SP:A53491 A53491 BUMETANIDE-SENSITIVE NA-K-C1 COTRANSPORTER - SPINY ; |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9550 | 22615 | 36184 | 0.64 | 1.0E-109 | BE397068.1 | EST_HUMAN | 601289760F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3620030 5' |
| 9550 | 22615 | 36185 | 0.64 | 1.0E-109 | BE397068.1 | EST_HUMAN | 601289760F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3620030 5' |
| 9685 | 22734 | 36304 | 1.37 | 1.0E-109 | F06604.1 | EST_HUMAN | HSC1EC121 normalized infant brain cDNA Homo sapiens cDNA clone c-1ec12 |
| 11013 | 24092 | 37730 | 1.8 | 1.0E-109 | BE540909.1 | EST_HUMAN | 601063030F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3449599 5' |
| 11013 | 24092 | 37731 | 1.8 | 1.0E-109 | BE540909.1 | EST_HUMAN | 601063030F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3449599 5' |
| 11046 | 24123 | 37757 | 19.68 | 1.0E-109 | BF694831.1 | EST_HUMAN | 602080724F2 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4245341 5'. |
| 11387 | 24448 | 38109 | 1.57 | 1.0E-109 | AU121370.1 | EST_HUMAN | AU121370 HEMBB1 Homo sapiens cDNA clone HEMBB1002690 5' |
| 11651 | 24730 | 38422 | 2.18 | 1.0E-109 | 4502838 | NT | Homo sapiens Chediak-Higashi syndrome 1 (CHS1) mRNA |
| 11693 | 24691 | 38382 | 4.5 | 1.0E-109 | W16510.1 | EST_HUMAN | zb08b12.r1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:301439 5' similar to PIR:S43969 S43969 p54-beta stress-activated protein kinases - rat ; |
| 11884 | 24872 | 38569 | 1.64 | 1.0E-109 | BE045560.1 | EST_HUMAN | hh23f05.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2955969 3' similar to TR:Q9Z124 Q9Z124 YGR163W MRNA HOMOLOGUE, COMPLETE CDS. ; |
| 11948 | 24934 | 38636 | 1.5 | 1.0E-109 | AL119824.1 | EST_HUMAN | DKFZp761I1124_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761I1124 5' |
| 11984 | 24969 | 38673 | 1.31 | 1.0E-109 | 11418618 | NT | Homo sapiens single-minded (Drosophila) homolog 1 (SIM1), mRNA |
| 12126 | 25106 | 38810 | 2.26 | 1.0E-109 | AB007932.1 | NT | Homo sapiens mRNA for KIAA0463 protein, partial cds |
| 12397 | 15457 | 28589 | 2.32 | 1.0E-109 | Y17123.1 | NT | Homo sapiens SNF5/INI1 gene, exon 6 |
| 12636 | 15457 | 28589 | 3.2 | 1.0E-109 | Y17123.1 | NT | Homo sapiens SNF5/INI1 gene, exon 6 |
| 12762 | 25506 | 32036 | 8.36 | 1.0E-109 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 3 | 13242 | 26242 | 1.4 | 1.0E-110 | 7549804 | NT | Homo sapiens deiodinase, iodothyronine, type II (DIO2), transcript variant 2, mRNA |
| 38 | 13276 | 26281 | 3.96 | 1.0E-110 | 5803073 | NT | Homo sapiens leucine-zipper-like transcriptional regulator, 1 (LZTR1), mRNA |
| 38 | 13276 | 26282 | 3.96 | 1.0E-110 | 5803073 | NT | Homo sapiens leucine-zipper-like transcriptional regulator, 1 (LZTR1), mRNA |
| 112 | 13242 | 26242 | 1.83 | 1.0E-110 | 7549804 | NT | Homo sapiens deiodinase, iodothyronine, type II (DIO2), transcript variant 2, mRNA |
| 305 | 13621 | 26555 | 1.31 | 1.0E-110 | D87291.1 | NT | Human mRNA for inward rectifier potassium channel, complete cds |
| 540 | 13733 | 26757 | 1.04 | 1.0E-110 | U84550.1 | NT | Human dystrobrevin (DTN) gene, exon 20 |
| 1207 | 14369 | 27429 | 0.89 | 1.0E-110 | 5031620 | NT | Homo sapiens calcitonin receptor-like (CALCRL) mRNA |
| 1308 | 14464 | 27532 | 1.02 | 1.0E-110 | AB032253.1 | NT | Homo sapiens BAZ1B mRNA for bromodomain adjacent to zinc finger domain 1B, complete cds |
| 1973 | 15116 | 28217 | 1.51 | 1.0E-110 | BE379477.1 | EST_HUMAN | 601237545F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3609683 5' |
| 2118 | 15256 |  | 1.66 | 1.0E-110 | BF508896.1 | EST_HUMAN | UI-H-BI4-aos-b-05-0-UI.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3085784 3' |
| 2903 | 16081 |  | 7.19 | 1.0E-110 | 4503098 | NT | Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA |
| 3156 | 16331 |  | 1.48 | 1.0E-110 | U78027.1 | NT | Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds |
| 3264 | 16438 | 29457 | 2.66 | 1.0E-110 | 11436041 | NT | Homo sapiens pregnancy-zone protein (PZP), mRNA |
| 3264 | 16438 | 29458 | 2.66 | 1.0E-110 | 11436041 | NT | Homo sapiens pregnancy-zone protein (PZP), mRNA |
| 4320 | 17463 | 30449 | 1.09 | 1.0E-110 | M15918.1 | NT | Human autoimmune antigen small nuclear ribonucleoprotein E pseudogene |

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## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4758 | 17893 | 30872 | 2.04 | 1.0E-110 | AI017213.1 | EST_HUMAN | ou32b10.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1627963 3' similar to SW:N121_RAT P52591 NUCLEAR ENVELOPE PORE MEMBRANE PROTEIN POM 121 ; |
| 4777 | 17912 | 30897 | 3.01 | 1.0E-110 | AU117812.1 | EST_HUMAN | AU117812 HEMBA1 Homo sapiens cDNA clone HEMBA1002241 5' |
| 5088 | 18216 | | 2.28 | 1.0E-110 | 7662441 | NT | Homo sapiens KIAA1002 protein (KIAA1002), mRNA |
| 5409 | 18611 | 31583 | 2.23 | 1.0E-110 | BE299406.1 | EST_HUMAN | 601118710F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3028538 5' |
| 5843 | 19033 | 32339 | 0.78 | 1.0E-110 | BE621069.1 | EST_HUMAN | 601493677F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3895795 5' |
| 5860 | 19050 | 32356 | 8.61 | 1.0E-110 | 11419323 | NT | Homo sapiens hypothetical protein FLJ10300 (FLJ10300), mRNA |
| 5860 | 19050 | 32357 | 8.61 | 1.0E-110 | 11419323 | NT | Homo sapiens hypothetical protein FLJ10300 (FLJ10300), mRNA |
| 6858 | 25835 | 33421 | 5.43 | 1.0E-110 | M55112.1 | NT | Human cystic fibrosis transmembrane conductance regulator (CFTR) gene, exon 7 |
| 7179 | 20311 | 33754 | 0.59 | 1.0E-110 | BE251496.1 | EST_HUMAN | 601109388F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350277 5' |
| 7251 | 20334 | 33782 | 0.85 | 1.0E-110 | U08888.1 | NT | Human GS2 gene, exon 2 |
| 7251 | 20334 | 33783 | 0.85 | 1.0E-110 | U08888.1 | NT. | Human GS2 gene, exon 2 |
| 7477 | 20552 | 34025 | 0.78 | 1.0E-110 | AI560269.1 | EST_HUMAN | tn12d08.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2167407 3' similar to SW:ETV1_HUMAN P50549 ETS TRANSLOCATION VARIANT 1 ; |
| 7583 | 20655 | 34131 | 16.19 | 1.0E-110 | AV714276.1 | EST_HUMAN | AV714276 DCB Homo sapiens cDNA clone DCBCGE01 5' |
| 7583 | 20655 | 34132 | 16.19 | 1.0E-110 | AV714276.1 | EST_HUMAN | AV714276 DCB Homo sapiens cDNA clone DCBCGE01 5' |
| 7613 | 20683 | 34159 | 2.87 | 1.0E-110 | AB020675.1 | NT | Homo sapiens mRNA for KIAA0868 protein, partial cds |
| 7743 | 20804 | 34293 | 0.96 | 1.0E-110 | AU137923.1 | EST_HUMAN | AU137923 PLACE1 Homo sapiens cDNA clone PLACE1007511 5' |
| 9536 | 22601 | 36174 | 1.09 | 1.0E-110 | BE302594.1 | EST_HUMAN | ba68f01.y1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2905561 5' similar to TR:O77258 O77258 EG:114D9.2 PROTEIN. ; |
| 9777 | 22817 | 36395 | 2.46 | 1.0E-110 | AW838394.1 | EST_HUMAN | QV2-LT0053-020400-119-e04 LT0053 Homo sapiens cDNA |
| 10529 | 23564 | 37171 | 3.38 | 1.0E-110 | 11432732 | NT | Homo sapiens galactokinase 2 (GALK2), mRNA |
| 10986 | 24065 | 37700 | 3.2 | 1.0E-110 | Y12337.1 | NT | H.sapiens mRNA for myotonic dystrophy protein kinase like protein |
| 11209 | 24278 | 37916 | 3.64 | 1.0E-110 | BE734357.1 | EST_HUMAN | 601565604F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3840433 5' |
| 11209 | 24278 | 37917 | 3.64 | 1.0E-110 | BE734357.1 | EST_HUMAN | 601565604F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3840433 5' |
| 11608 | 24661 | 38347 | 1.89 | 1.0E-110 | M10051.1 | NT | Human insulin receptor mRNA, complete cds |
| 11728 | 23914 | 37539 | 1.7 | 1.0E-110 | AA446529.1 | EST_HUMAN | zw67g02.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:781298 5' similar to TR:G1145816 G1145816 FKBP54 ; |
| 12211 | 25164 | | 2.47 | 1.0E-110 | BE897218.1 | EST_HUMAN | 601439784F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924548 5' |
| 12341 | 25246 | | 2.86 | 1.0E-110 | AW062258.1 | EST_HUMAN | IL0-BT0163-040899-094-g10 BT0163 Homo sapiens cDNA |
| 12594 | 25400 | | 2.96 | 1.0E-110 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 12746 | 26113 | | 6.01 | 1.0E-110 | BF364546.1 | EST_HUMAN | PM3-NN1082-140900-006-f12 NN1082 Homo sapiens cDNA |
| 13071 | 15256 | | 1.16 | 1.0E-110 | BF508898.1 | EST_HUMAN | UI-H-BI4-aos-b-05-0-UI.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3085784 3' |
| 179 | 13402 | | 11.92 | 1.0E-111 | U43701.1 | NT | Human ribosomal protein L23a mRNA, complete cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 201 | 13424 | 26455 | 1.64 | 1.0E-111 | 4758807 | NT | Homo sapiens ras GTPase activating protein-like (NGAP) mRNA |
| 753 | 13934 | | 1.99 | 1.0E-111 | BF035327.1 | EST_HUMAN | 601458531F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3862086 5' |
| 762 | 13943 | 26989 | 4.13 | 1.0E-111 | 8393092 | NT | Homo sapiens cat eye syndrome critical region gene 1 (CECR1), mRNA |
| 950 | 14123 | 27185 | 2.5 | 1.0E-111 | M25142.1 | NT | Human cardiac alpha-myosin heavy chain (MYH6) gene, exons 32 to 34 |
| 4286 | 17431 | 30419 | 1.15 | 1.0E-111 | 7661569 | NT | Homo sapiens DKFZP434D156 protein (DKFZP434D156), mRNA |
| 4449 | 17589 | 30570 | 4.59 | 1.0E-111 | K02268.1 | NT | Human enkephalin B (enkB) gene, exon 4 and 3' flank and complete cds |
| 5593 | 18788 | 31835 | 0.75 | 1.0E-111 | AA151017.1 | EST_HUMAN | zl47b07.r1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:505045 5' similar to gb:M23575 PREGNANCY-SPECIFIC BETA-1 GLYCOPROTEIN C PRECURSOR (HUMAN); |
| 5593 | 18788 | 31836 | 0.75 | 1.0E-111 | AA151017.1 | EST_HUMAN | zl47b07.r1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:505045 5' similar to gb:M23575 PREGNANCY-SPECIFIC BETA-1 GLYCOPROTEIN C PRECURSOR (HUMAN); |
| 5749 | 18941 | 32242 | 0.88 | 1.0E-111 | BE867909.1 | EST_HUMAN | 601443690F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847655 5' |
| 5802 | 19052 | 32359 | 0.66 | 1.0E-111 | U19969.1 | NT | Human two-handed zinc finger protein ZEB mRNA, partial cds |
| 6156 | 19332 | 32678 | 2.09 | 1.0E-111 | AI344679.1 | EST_HUMAN | qp09g12.x1 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1917574 3' similar to gb:M29893 RAS-RELATED PROTEIN RAL-A (HUMAN); |
| 6818 | 19971 | 33379 | 0.96 | 1.0E-111 | AL040762.1 | EST_HUMAN | DKFZp434C1815_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434C1815 5' |
| 6945 | 20258 | 33697 | 1.31 | 1.0E-111 | AW294648.1 | EST_HUMAN | UI-H-BW0-ail-d-03-0-UI.s1 NCI_CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2729525 3' |
| 7605 | 20675 | 34149 | 3.04 | 1.0E-111 | BF366228.1 | EST_HUMAN | IL2-NT0101-280700-114-E03 NT0101 Homo sapiens cDNA |
| 7704 | 20769 | 34254 | 0.7 | 1.0E-111 | AI761228.1 | EST_HUMAN | wi68d01.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2398465 3' similar to gb:J04813 CYTOCHROME P450 IIIA5 (HUMAN); |
| 7791 | 20847 | 34340 | 0.83 | 1.0E-111 | U80017.1 | NT | Homo sapiens basic transcription factor 2 p44 (btf2p44) gene, partial cds, neuronal apoptosis inhibitory protein (naip) and survival motor neuron protein (smn) genes, complete cds |
| 8286 | 21368 | 34888 | 0.8 | 1.0E-111 | AA278868.1 | EST_HUMAN | zs79g03.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:703732 5' similar to TR:G1256410 G1256410 11-ZINC-FINGER TRANSCRIPTION FACTOR. ; |
| 8286 | 21368 | 34889 | 0.8 | 1.0E-111 | AA278868.1 | EST_HUMAN | zs79g03.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:703732 5' similar to TR:G1256410 G1256410 11-ZINC-FINGER TRANSCRIPTION FACTOR. ; |
| 8383 | 21464 | 34989 | 0.63 | 1.0E-111 | 11431896 | NT | Homo sapiens protein x 0001 (LOC51185), mRNA |
| 8435 | 21516 | 35047 | 3.56 | 1.0E-111 | U66533.1 | NT | Human beta4-integrin (ITGB4) gene, exon 13 |
| 8878 | 21957 | 35492 | 0.96 | 1.0E-111 | 11420516 | NT | Homo sapiens nuclear factor of activated T-cells, cytoplasmic 2 (NFATC2), mRNA |
| 8975 | 22054 | 35597 | 0.64 | 1.0E-111 | AK024453.1 | NT | Homo sapiens mRNA for FLJ00045 protein, partial cds |
| 9008 | 22087 | | 8.43 | 1.0E-111 | BF214902.1 | EST_HUMAN | 601847132F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4078303 5' |
| 9085 | 22164 | 35708 | 15.93 | 1.0E-111 | X17033.1 | NT | Human mRNA for integrin alpha-2 subunit |
| 9085 | 22164 | 35709 | 15.93 | 1.0E-111 | X17033.1 | NT | Human mRNA for integrin alpha-2 subunit |
| 9289 | 22365 | 35914 | 3.37 | 1.0E-111 | AF091395.1 | NT | Homo sapiens Trio isoform mRNA, complete cds |
| 9518 | 22583 | 36162 | 0.54 | 1.0E-111 | BF333210.1 | EST_HUMAN | QV2-BT0817-270900-398-e06 BT0817 Homo sapiens cDNA |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10355 | 23390 | 37000 | 1.56 | 1.0E-111 | AA504160.1 | EST_HUMAN | aa58g02.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:825170 3' similar to gb:L09235 VACUOLAR ATP SYNTHASE CATALYTIC SUBUNIT A, UBIQUITOUS (HUMAN); |
| 10383 | 23418 | | 1.04 | 1.0E-111 | D10083.1 | NT | Homo sapiens RGH1 gene, retrovirus-like element |
| 10479 | 23514 | 37127 | 5.58 | 1.0E-111 | AA131248.1 | EST_HUMAN | zl31f01.r1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:503545 5' |
| 10995 | 24074 | 37707 | 1.34 | 1.0E-111 | AW296467.1 | EST_HUMAN | UI-H-BW0-alq-d-07-0-UI.s1 NCI_CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2730276 3' |
| 11299 | 24365 | 38006 | 3.29 | 1.0E-111 | U68159.1 | NT | Human thrombopoietin receptor (MPL) gene, exons 1,2,3,4,5 and 6 |
| 12167 | 25130 | 38828 | 4.07 | 1.0E-111 | 11417901 | NT | Homo sapiens meningioma (disrupted in balanced translocation) 1 (MN1), mRNA |
| 12741 | 25492 | 32029 | 4.72 | 1.0E-111 | AV708482.1 | EST_HUMAN | AV708482 ADC Homo sapiens cDNA clone ADCAOB08 5' |
| 12881 | 25888 | 31855 | 4.82 | 1.0E-111 | W22562.1 | EST_HUMAN | 72C9 Human retina cDNA Tsp509I-cleaved sublibrary Homo sapiens cDNA not directional |
| 13041 | 18504 | 31539 | 1.27 | 1.0E-111 | AB035356.1 | NT | Homo sapiens mRNA for neurexin I-alpha protein, complete cds |
| 623 | 13808 | 26829 | 2.77 | 1.0E-112 | 4501854 | NT | Homo sapiens acetyl-Coenzyme A carboxylase beta (ACACB), mRNA |
| 625 | 13810 | 26831 | 4.84 | 1.0E-112 | U29103.1 | NT | Human steroidogenic acute regulatory protein (StAR) gene, exon 5 |
| 625 | 13810 | 26832 | 4.84 | 1.0E-112 | U29103.1 | NT | Human steroidogenic acute regulatory protein (StAR) gene, exon 5 |
| 649 | 13834 | 26860 | 1.82 | 1.0E-112 | BF509039.1 | EST_HUMAN | UI-H-BI4-aot-g-04-0-UI.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3086023 3' |
| 649 | 13834 | 26861 | 1.82 | 1.0E-112 | BF509039.1 | EST_HUMAN | UI-H-BI4-aot-g-04-0-UI.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3086023 3' |
| 1026 | 14197 | 27255 | 33.06 | 1.0E-112 | AF157623.1 | NT | Homo sapiens HTRA serine protease (PRSS11) gene, complete cds |
| 1087 | 14253 | 27308 | 1.49 | 1.0E-112 | P52742 | SWISSPROT | ZINC FINGER PROTEIN 135 |
| 1718 | 14868 | 27958 | 7.1 | 1.0E-112 | 7662125 | NT | Homo sapiens KIAA0440 protein (KIAA0440), mRNA |
| 1718 | 14868 | 27959 | 7.1 | 1.0E-112 | 7662126 | NT | Homo sapiens KIAA0440 protein (KIAA0440), mRNA |
| 1863 | 15009 | 28115 | 1.11 | 1.0E-112 | AF248540.1 | NT | Homo sapiens intersectin 2 (SH3D1B) mRNA, complete cds |
| 2577 | 15703 | 28823 | 2.83 | 1.0E-112 | BE866859.1 | EST_HUMAN | 601442674F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3846858 5' |
| 3147 | 16323 | | 0.76 | 1.0E-112 | 4504116 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 3444 | 16612 | 29630 | 0.61 | 1.0E-112 | AI826511.1 | EST_HUMAN | wk45b12.x1 NCI_CGAP_Pr22 Homo sapiens cDNA clone IMAGE:2418335 3' similar to gb:M81650_rna1 SEMENOGELIN 1 PROTEIN PRECURSOR (HUMAN); |
| 3990 | 17147 | 30153 | 0.63 | 1.0E-112 | BE076073.1 | EST_HUMAN | MR2-BT0590-090300-113-f09 BT0590 Homo sapiens cDNA |
| 4726 | 17861 | 30843 | 0.68 | 1.0E-112 | 4504116 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 4876 | 18007 | 30990 | 5.87 | 1.0E-112 | AB037832.1 | NT | Homo sapiens mRNA for KIAA1411 protein, partial cds |
| 4876 | 18007 | 30991 | 5.87 | 1.0E-112 | AB037832.1 | NT | Homo sapiens mRNA for KIAA1411 protein, partial cds |
| 5784 | 18976 | 32282 | 36.7 | 1.0E-112 | N46046.1 | EST_HUMAN | yy35d07.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:273229 5' |
| 6201 | 19376 | 32727 | 1.33 | 1.0E-112 | AF149773.1 | NT | Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3 |
| 6273 | 19447 | 32795 | 0.66 | 1.0E-112 | AW502437.1 | EST_HUMAN | UI-HF-BR0p-ajs-g-06-0-UI.r1 NIH_MGC_52 Homo sapiens cDNA clone IMAGE:3075658 5' |
| 6273 | 19447 | 32796 | 0.66 | 1.0E-112 | AW502437.1 | EST_HUMAN | UI-HF-BR0p-ajs-g-06-0-UI.r1 NIH_MGC_52 Homo sapiens cDNA clone IMAGE:3075658 5' |
| 6379 | 19548 | 32904 | 0.93 | 1.0E-112 | BE741666.1 | EST_HUMAN | 601694717F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3948557 5' |
| 6588 | 19749 | 33132 | 0.7 | 1.0E-112 | BF672815.1 | EST_HUMAN | 602152649F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4293420 5' |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6773 | 19928 | 33323 | 0.83 | 1.0E-112 | BE273103.1 | EST_HUMAN | 601142755F1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:3506508 5' |
| 6773 | 19928 | 33324 | 0.83 | 1.0E-112 | BE273103.1 | EST_HUMAN | 601142755F1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:3506508 5' |
| 6981 | 20209 | 33637 | 1.51 | 1.0E-112 | BF574235.1 | EST_HUMAN | 602131405F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4270921 5' |
| 7305 | 20387 | 33847 | 0.68 | 1.0E-112 | AL043299.1 | EST_HUMAN | DKFZp434M0523_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434M0523 5' |
| 7491 | 20566 | 34037 | 1.49 | 1.0E-112 | 11416777 | NT | Homo sapiens solute carrier family 6 (neurotransmitter transporter, L-proline), member 7 (SLC6A7), mRNA |
| 7491 | 20566 | 34038 | 1.49 | 1.0E-112 | 11416777 | NT | Homo sapiens solute carrier family 6 (neurotransmitter transporter, L-proline), member 7 (SLC6A7), mRNA |
| 8387 | 21468 | 34995 | 1.79 | 1.0E-112 | AU118051.1 | EST_HUMAN | AU118051 HEMBA1 Homo sapiens cDNA clone HEMBA1002773 5' |
| 9158 | 22236 | 35781 | 2.64 | 1.0E-112 | BE867635.1 | EST_HUMAN | 601443151F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847285 5' |
| 9158 | 22236 | 35782 | 2.64 | 1.0E-112 | BE867635.1 | EST_HUMAN | 601443151F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847285 5' |
| 10097 | 23136 | 36736 | 2.37 | 1.0E-112 | BF111413.1 | EST_HUMAN | 7l30g07.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3523020 3' similar to TR:Q9VW35 Q9VW35 CG8743 PROTEIN. ; |
| 11017 | 24096 | 37735 | 16.73 | 1.0E-112 | AW863327.1 | EST_HUMAN | MR3-SN0009-100400-106-b12 SN0009 Homo sapiens cDNA |
| 11103 | 24175 | 37810 | 1.31 | 1.0E-112 | T93967.1 | EST_HUMAN | yd56d10.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:112243 3' similar to SP:C40H1.1 CE00109 OVARIAN PROTEIN ; |
| 11103 | 24175 | 37811 | 1.31 | 1.0E-112 | T93967.1 | EST_HUMAN | yd56d10.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:112243 3' similar to SP:C40H1.1 CE00109 OVARIAN PROTEIN ; |
| 11191 | 24260 | 37896 | 3.14 | 1.0E-112 | AJ249900.1 | NT | Homo sapiens mRNA for secreted modular calcium-binding protein (smoc1 gene) |
| 11359 | 24421 | 38077 | 2.24 | 1.0E-112 | BE280479.1 | EST_HUMAN | 601155323F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3136989 5' |
| 11428 | 24489 | 38153 | 2.28 | 1.0E-112 | AI792603.1 | EST_HUMAN | qk24c08.y5 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1869902 5' similar to TR:Q64362 Q64362 FUSED TOES ; |
| 11428 | 24489 | 38154 | 2.28 | 1.0E-112 | AI792603.1 | EST_HUMAN | qk24c08.y5 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1869902 5' similar to TR:Q64362 Q64362 FUSED TOES ; |
| 11460 | 24519 | 38188 | 4.78 | 1.0E-112 | AW377670.1 | EST_HUMAN | PM0-CT0237-141099-001-h02 CT0237 Homo sapiens cDNA |
| 12096 | 25076 | 38783 | 1.66 | 1.0E-112 | AI792603.1 | EST_HUMAN | qk24c08.y5 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1869902 5' similar to TR:Q64362 Q64362 FUSED TOES ; |
| 12096 | 25076 | 38784 | 1.66 | 1.0E-112 | AI792603.1 | EST_HUMAN | qk24c08.y5 NCI_CGAP_Kid3 Homo sapiens cDNA clone IMAGE:1869902 5' similar to TR:Q64362 Q64362 FUSED TOES ; |
| 12727 | 25484 |  | 1.31 | 1.0E-112 | AF106656.1 | NT | Homo sapiens adenylosuccinate lyase gene, complete cds |
| 761 | 13942 | 26987 | 6.82 | 1.0E-113 | AI365586.1 | EST_HUMAN | ao95f01.x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1953625 3' |
| 761 | 13942 | 26988 | 6.82 | 1.0E-113 | AI365586.1 | EST_HUMAN | ao95f01.x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1953625 3' |
| 965 | 14138 | 27199 | 2.93 | 1.0E-113 | M11965.1 | NT | Human X-linked phosphoglycerate kinase gene, exon 8 |
| 1572 | 14725 | 27805 | 3.23 | 1.0E-113 | AI365586.1 | EST_HUMAN | ao95f01.x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1953625 3' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1993 | 15994 | 28240 | 1.63 | 1.0E-113 | AF240775.1 | NT | Homo sapiens eIF4E-transporter mRNA, complete cds |
| 2161 | 15297 | 28422 | 1.49 | 1.0E-113 | BF515218.1 | EST_HUMAN | UI-H-BW1-anl-f-03-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3082876 3' |
| 3200 | 16375 | 29385 | 2.06 | 1.0E-113 | AJ223948.1 | NT | Homo sapiens mRNA for putative RNA helicase, 3' end |
| 5178 | 18300 | 31263 | 36.66 | 1.0E-113 | 5453562 | NT | Homo sapiens activating transcription factor B (B-ATF), mRNA |
| 5178 | 18300 | 31264 | 36.66 | 1.0E-113 | 5453562 | NT | Homo sapiens activating transcription factor B (B-ATF), mRNA |
| 5359 | 25930 | | 2.4 | 1.0E-113 | BE780858.1 | EST_HUMAN | 601469465F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3872536 5' |
| 5610 | 18805 | 31870 | 6.37 | 1.0E-113 | AU127214.1 | EST_HUMAN | AU127214 NT2RP2 Homo sapiens cDNA clone NT2RP2000807 5' |
| 6045 | 19228 | 32552 | 3.54 | 1.0E-113 | AU140291.1 | EST_HUMAN | AU140291 PLACE2 Homo sapiens cDNA clone PLACE2000274 5' |
| 6072 | 19264 | 32583 | 1.02 | 1.0E-113 | AF016535.1 | NT | Homo sapiens P-glycoprotein (mdr1) mRNA, complete cds |
| 6195 | 19371 | 32722 | 2.57 | 1.0E-113 | 11525737 | NT | Homo sapiens UDP-N-acetyl-alpha-D-galactosamine:polypeptide N-acetylgalactosaminyltransferase 8 (GalNAc-T8) (GALNT8), mRNA |
| 6285 | 19458 | 32809 | 0.8 | 1.0E-113 | 9961249 | NT | Homo sapiens ATP-binding cassette, sub-family B (MDR/TAP), member 4 (ABCB4), transcript variant B, mRNA |
| 6285 | 19458 | 32810 | 0.8 | 1.0E-113 | 9961249 | NT | Homo sapiens ATP-binding cassette, sub-family B (MDR/TAP), member 4 (ABCB4), transcript variant B, mRNA |
| 6446 | 19613 | 32976 | 0.68 | 1.0E-113 | 6006002 | NT | Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2A (GRIN2A) mRNA |
| 6446 | 19613 | 32977 | 0.68 | 1.0E-113 | 6006002 | NT | Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2A (GRIN2A) mRNA |
| 7474 | 20549 | 34021 | 0.63 | 1.0E-113 | BE262161.1 | EST_HUMAN | 601152078F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3508362 5' |
| 7474 | 20549 | 34022 | 0.63 | 1.0E-113 | BE262161.1 | EST_HUMAN | 601152078F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3508362 5' |
| 9093 | 22172 | 35717 | 0.5 | 1.0E-113 | 8922819 | NT | Homo sapiens hypothetical protein FLJ11006 (FLJ11006), mRNA |
| 9296 | 22372 | 35921 | 2.91 | 1.0E-113 | BE382842.1 | EST_HUMAN | 601297709F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3627554 5' |
| 9296 | 22372 | 35922 | 2.91 | 1.0E-113 | BE382842.1 | EST_HUMAN | 601297709F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3627554 5' |
| 9601 | 22656 | | 0.62 | 1.0E-113 | BE772967.1 | EST_HUMAN | RC1-FT0134-280600-021-d02 FT0134 Homo sapiens cDNA |
| 10036 | 23074 | 36674 | 1.27 | 1.0E-113 | 11429367 | NT | Homo sapiens transmembrane protein 2 (TMEM2), mRNA |
| 10256 | 23291 | 36888 | 1.01 | 1.0E-113 | 5453997 | NT | Homo sapiens RAN binding protein 7 (RANBP7), mRNA |
| 10256 | 23291 | 36889 | 1.01 | 1.0E-113 | 5453997 | NT | Homo sapiens RAN binding protein 7 (RANBP7), mRNA |
| 10842 | 23876 | 37495 | 0.47 | 1.0E-113 | AW500517.1 | EST_HUMAN | UI-HF-BN0-akj-b-10-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077322 5' |
| 11385 | 24446 | 38107 | 1.89 | 1.0E-113 | AW500519.1 | EST_HUMAN | UI-HF-BN0-akj-b-12-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077326 5' |
| 11396 | 24457 | 38119 | 5.42 | 1.0E-113 | AW630291.1 | EST_HUMAN | hh81a09.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2969176 5' similar to TR:O60327 O60327 KIAA0584 PROTEIN ; |
| 11396 | 24457 | 38120 | 5.42 | 1.0E-113 | AW630291.1 | EST_HUMAN | hh81a09.y1 NCI_CGAP_GU1 Homo sapiens cDNA clone IMAGE:2969176 5' similar to TR:O60327 O60327 KIAA0584 PROTEIN ; |
| 11640 | 24696 | 38272 | 2.91 | 1.0E-113 | BE292968.1 | EST_HUMAN | 601105529F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2988366 5' |
| 59 | 13297 | 26314 | 0.75 | 1.0E-114 | Y17151.2 | NT | Homo sapiens mRNA for multidrug resistance protein 3 (ABCC3) |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 59 | 13297 | 26315 | 0.75 | 1.0E-114 | Y17151.2 | NT | Homo sapiens mRNA for multidrug resistance protein 3 (ABCC3) |
| 59 | 13297 | 26316 | 0.75 | 1.0E-114 | Y17151.2 | NT | Homo sapiens mRNA for multidrug resistance protein 3 (ABCC3) |
| 662 | 13848 | 26876 | 7.46 | 1.0E-114 | T70551.1 | EST_HUMAN | yd15c01.o1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:108288 3' similar to gb:A21187 ALPHA-2-MACROGLOBULIN PRECURSOR (HUMAN);contains Alu repetitive element; |
| 1096 | 14261 | 27318 | 2.54 | 1.0E-114 | 8923087 | NT | Homo sapiens hypothetical protein FLJ20080 (FLJ20080), mRNA |
| 1341 | 14497 | 27569 | 4.65 | 1.0E-114 | 7657529 | NT | Homo sapiens rhabdoid tumor deletion region protein 1 (RTDR1), mRNA |
| 1673 | 14825 | 27909 | 1.9 | 1.0E-114 | 6631094 | NT | Homo sapiens minichromosome maintenance deficient (S. cerevisiae) 3 (MCM3), mRNA |
| 1706 | 14858 | 27945 | 5.08 | 1.0E-114 | 6679073 | NT | Homo sapiens nucleoporin-like protein 1 (NLP_1), mRNA |
| 2145 | 15281 | 28406 | 2.52 | 1.0E-114 | BE171984.1 | EST_HUMAN | MR0-HT0559-250200-002-d07 HT0559 Homo sapiens cDNA |
| 2330 | 15462 | 28595 | 0.99 | 1.0E-114 | AB002374.1 | NT | Human mRNA for KIAA0376 gene, partial cds |
| 2865 | 13283 | 26290 | 0.6 | 1.0E-114 | AB033102.1 | NT | Homo sapiens mRNA for KIAA1276 protein, partial cds |
| 2865 | 13283 | 26291 | 0.6 | 1.0E-114 | AB033102.1 | NT | Homo sapiens mRNA for KIAA1276 protein, partial cds |
| 3201 | 16376 | 29386 | 2.6 | 1.0E-114 | X04086.1 | NT | Human gene for catalase (EC 1.11.1.6) exon 2 mapping to chromosome 11, band p13 |
| 3240 | 16414 | 29429 | 1.03 | 1.0E-114 | BF206374.1 | EST_HUMAN | 601869932F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4100214 5' |
| 4124 | 17278 | 30275 | 3.27 | 1.0E-114 | AF149773.1 | NT | Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3 |
| 4510 | 17649 | 30637 | 0.7 | 1.0E-114 | J03171.1 | NT | Human interferon-alpha receptor (HuIFN-alpha-Rec) mRNA, complete cds |
| 5282 | 18401 | 31370 | 1.1 | 1.0E-114 | AW294203.1 | EST_HUMAN | UI-H-BI2-aho-d-01-0-UI.s1 NCI_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2726424 3' |
| 5516 | 18714 | 31727 | 1.68 | 1.0E-114 | 4506880 | NT | Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A (SEMA5A) mRNA |
| 5516 | 18714 | 31728 | 1.68 | 1.0E-114 | 4506880 | NT | Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A (SEMA5A) mRNA |
| 5712 | 18905 | 32200 | 0.9 | 1.0E-114 | 9257201 | NT | Homo sapiens clathrin, heavy polypeptide-like 1 (CLTCL1), transcript variant 2, mRNA |
| 7224 | 20088 |  | 0.71 | 1.0E-114 | AB041533.1 | NT | Homo sapiens HCMOGT-1 mRNA for sperm antigen, complete cds |
| 7388 | 20466 | 33931 | 1.09 | 1.0E-114 | AU134187.1 | EST_HUMAN | AU134187 OVARC1 Homo sapiens cDNA clone OVARC1001444 5' |
| 7388 | 20466 | 33932 | 1.09 | 1.0E-114 | AU134187.1 | EST_HUMAN | AU134187 OVARC1 Homo sapiens cDNA clone OVARC1001444 5' |
| 7434 | 20511 | 33983 | 8.2 | 1.0E-114 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 7434 | 20511 | 33984 | 8.2 | 1.0E-114 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 8075 | 21157 | 34675 | 1.94 | 1.0E-114 | 4557600 | NT | Homo sapiens gamma-aminobutyric acid (GABA) A receptor, alpha 2 (GABRA2) mRNA |
| 8360 | 21441 | 34963 | 1.85 | 1.0E-114 | AI363139.1 | EST_HUMAN | qy68d06.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2017163 3' |
| 8360 | 21441 | 34964 | 1.85 | 1.0E-114 | AI363139.1 | EST_HUMAN | qy68d06.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2017163 3' |
| 8898 | 21977 | 35516 | 2.99 | 1.0E-114 | U63041.1 | NT | Human neural cell adhesion molecule CD56 mRNA, complete cds |
| 8966 | 22045 | 35589 | 5.81 | 1.0E-114 | AB011133.1 | NT | Homo sapiens mRNA for KIAA0561 protein, partial cds |
| 8966 | 22045 | 35590 | 5.81 | 1.0E-114 | AB011133.1 | NT | Homo sapiens mRNA for KIAA0561 protein, partial cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9384 | 22459 | 36022 | 0.87 | 1.0E-114 | BF109832.1 | EST_HUMAN | 7l69g12.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3526847 3' similar to TR:Q9UHN6 Q9UHN6 TRANSMEMBRANE PROTEIN 2. ; |
| 9614 | 22669 | | 1.3 | 1.0E-114 | AW327465.1 | EST_HUMAN | dq03f05.x1 NIH_MGC_2 Homo sapiens cDNA clone IMAGE:2846744 6' |
| 9662 | 21104 | 34621 | 2.67 | 1.0E-114 | AF077754.1 | NT | Homo sapiens tyrosine kinase pp60c-src (SRC) gene, exon 12 and partial cds |
| 9748 | 22812 | | 1.36 | 1.0E-114 | M13536.1 | NT | Human ceruloplasmin mRNA |
| 10343 | 23378 | 36989 | 1.02 | 1.0E-114 | BE870004.1 | EST_HUMAN | 601449752F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3853500 5' |
| 10364 | 23399 | 37010 | 1.11 | 1.0E-114 | AL163227.2 | NT | Homo sapiens chromosome 21 segment HS21C027 |
| 10762 | 23795 | 37416 | 1.18 | 1.0E-114 | BE171984.1 | EST_HUMAN | MR0-HT0559-250200-002-d07 HT0559 Homo sapiens cDNA |
| 11027 | 24106 | | 4.31 | 1.0E-114 | BE302666.1 | EST_HUMAN | ba73g12.y1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2906086 5' similar to gb:X17206 40S RIBOSOMAL PROTEIN S4 (HUMAN); gb:M20632 Mouse LLRep3 protein mRNA from a repetitive element, complete (MOUSE); |
| 11466 | 24525 | 38197 | 8.11 | 1.0E-114 | AV733454.1 | EST_HUMAN | AV733454 cdA Homo sapiens cDNA clone cdABA08 5' |
| 11466 | 24525 | 38198 | 8.11 | 1.0E-114 | AV733454.1 | EST_HUMAN | AV733454 cdA Homo sapiens cDNA clone cdABA08 5' |
| 11842 | 24831 | 38522 | 6.28 | 1.0E-114 | AV733454.1 | EST_HUMAN | AV733454 cdA Homo sapiens cDNA clone cdABA08 5' |
| 11842 | 24831 | 38523 | 6.28 | 1.0E-114 | AV733454.1 | EST_HUMAN | AV733454 cdA Homo sapiens cDNA clone cdABA08 5' |
| 12643 | 26187 | | 4.63 | 1.0E-114 | 11418041 | NT | Homo sapiens TNF-inducible protein CG12-1 (CG12-1), mRNA |
| 12936 | 25616 | 31975 | 2.75 | 1.0E-114 | 11034850 | NT | Homo sapiens hypothetical protein (DJ1042K10.2), mRNA |
| 12936 | 25616 | 31976 | 2.75 | 1.0E-114 | 11034850 | NT | Homo sapiens hypothetical protein (DJ1042K10.2), mRNA |
| 24 | 13262 | 26264 | 3.06 | 1.0E-115 | 4758111 | NT | Homo sapiens HLA-B associated transcript-1 (D6S81E) mRNA |
| 132 | 13358 | 26391 | 1.09 | 1.0E-115 | 4505938 | NT | Homo sapiens polymerase (RNA) II (DNA directed) polypeptide A (220kD) (POLR2A) mRNA |
| 136 | 13362 | | 18.42 | 1.0E-115 | 4557887 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 303 | 13519 | 26552 | 2.02 | 1.0E-115 | AW804759.1 | EST_HUMAN | QV4-UM0094-300300-156-b08 UM0094 Homo sapiens cDNA |
| 649 | 13742 | 26766 | 1.68 | 1.0E-115 | AI339206.1 | EST_HUMAN | qt06f01.x1 NCI_CGAP_GC4 Homo sapiens cDNA clone IMAGE:1946809 3' similar to TR:O00536 O00536 TTF-I INTERACTING PEPTIDE 5 ; |
| 649 | 13742 | 26767 | 1.68 | 1.0E-115 | AI339206.1 | EST_HUMAN | qt06f01.x1 NCI_CGAP_GC4 Homo sapiens cDNA clone IMAGE:1946809 3' similar to TR:O00536 O00536 TTF-I INTERACTING PEPTIDE 5 ; |
| 809 | 13988 | 27041 | 3 | 1.0E-115 | 5174702 | NT | Homo sapiens transforming growth factor beta-activated kinase-binding protein 1 (TAB1), mRNA |
| 809 | 13988 | 27042 | 3 | 1.0E-115 | 5174702 | NT | Homo sapiens transforming growth factor beta-activated kinase-binding protein 1 (TAB1), mRNA |
| 811 | 13990 | 27044 | 15.24 | 1.0E-115 | 4503794 | NT | Homo sapiens ferritin, heavy polypeptide 1 (FTH1) mRNA |
| 1590 | 14742 | 27823 | 1.15 | 1.0E-115 | AF229180.1 | NT | Homo sapiens alpha-aminoadipate semialdehyde synthase mRNA, complete cds |
| 1590 | 14742 | 27824 | 1.15 | 1.0E-115 | AF229180.1 | NT | Homo sapiens alpha-aminoadipate semialdehyde synthase mRNA, complete cds |
| 1888 | 15032 | 28140 | 1.31 | 1.0E-116 | U78027.1 | NT | Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds |
| 2142 | 15278 | 28400 | 1.13 | 1.0E-116 | BE745469.1 | EST_HUMAN | 601579838F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3928832 5' |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2142 | 15278 | 28401 | 1.13 | 1.0E-115 | BE745469.1 | EST_HUMAN | 601579838F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3928832 5' |
| 2150 | 15286 | 28411 | 1.1 | 1.0E-115 | AB007902.1 | NT | Homo sapiens KIAA0442 mRNA, partial cds |
| 2374 | 15505 | 28631 | 1.11 | 1.0E-115 | AF231124.1 | NT | Homo sapiens testican-1 mRNA, complete cds |
| 2912 | 16090 | | 1.03 | 1.0E-115 | AW804759.1 | EST_HUMAN | QV4-UM0094-300300-156-b08 UM0094 Homo sapiens cDNA |
| 3184 | 16359 | 29365 | 2.88 | 1.0E-115 | AJ245922.1 | NT | Homo sapiens mRNA for alpha-tubulin 8 (TUBA8 gene) |
| 3184 | 16359 | 29366 | 2.88 | 1.0E-115 | AJ245922.1 | NT | Homo sapiens mRNA for alpha-tubulin 8 (TUBA8 gene) |
| 3561 | 16726 | 29742 | 1.8 | 1.0E-115 | AJ277892.1 | NT | Homo sapiens partial TTN gene for titin |
| 4153 | 17305 | 30299 | 4.2 | 1.0E-115 | AB002348.2 | NT | Homo sapiens mRNA for KIAA0350 protein, partial cds |
| 4521 | 17660 | 30647 | 2.49 | 1.0E-115 | 6912659 | NT | Homo sapiens sir2-like 3 (SIRT3), mRNA |
| 4557 | 17696 | 30674 | 4.28 | 1.0E-115 | 4758279 | NT | Homo sapiens EphA4 (EPHA4) mRNA |
| 4797 | 17932 | 30918 | 2.86 | 1.0E-115 | AL096857.1 | NT | Novel human mRNA from chromosome 1, which has similarities to BAT2 genes |
| 4797 | 17932 | 30919 | 2.86 | 1.0E-115 | AL096857.1 | NT | Novel human mRNA from chromosome 1, which has similarities to BAT2 genes |
| 5026 | 18155 | 31132 | 2.99 | 1.0E-115 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 5026 | 18155 | 31133 | 2.99 | 1.0E-115 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 5044 | 18172 | 31149 | 1.01 | 1.0E-115 | Y18215.1 | NT | Homo sapiens putative psihHbC pseudogene for hair keratin, exons 1 to 9 |
| 5304 | 18421 | 31391 | 1.23 | 1.0E-115 | 4504658 | NT | Homo sapiens interleukin 1 receptor, type I (IL1R1) mRNA |
| 5347 | 18460 | 31425 | 0.92 | 1.0E-115 | AB018311.1 | NT | Homo sapiens mRNA for KIAA0768 protein, partial cds |
| 5463 | 18663 | 31642 | 2.8 | 1.0E-115 | AW970335.1 | EST_HUMAN | EST382416 MAGE resequences, MAGK Homo sapiens cDNA |
| 5540 | 18737 | 31754 | 0.97 | 1.0E-115 | BF665387.1 | EST_HUMAN | 602119346F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4276738 5' |
| 5659 | 18853 | 32136 | 1.74 | 1.0E-115 | 11425128 | NT | Homo sapiens similar to ER to nucleus signalling 1 (H. sapiens) (LOC63433), mRNA |
| 5659 | 18853 | 32137 | 1.74 | 1.0E-115 | 11425128 | NT | Homo sapiens similar to ER to nucleus signalling 1 (H. sapiens) (LOC63433), mRNA |
| 5808 | 18998 | 32304 | 1.15 | 1.0E-115 | AI928799.1 | EST_HUMAN | au64g01.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2519568 3' similar to gb:L07807 DYNAMIN-1 (HUMAN); |
| 5808 | 18998 | 32305 | 1.15 | 1.0E-115 | AI928799.1 | EST_HUMAN | au64g01.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2519568 3' similar to gb:L07807 DYNAMIN-1 (HUMAN); |
| 6391 | 19560 | 32919 | 0.68 | 1.0E-115 | 11426786 | NT | Homo sapiens sperm surface protein (HSS), mRNA |
| 6391 | 19560 | 32920 | 0.68 | 1.0E-115 | 11426786 | NT | Homo sapiens sperm surface protein (HSS), mRNA |
| 6525 | 19690 | 33064 | 9.49 | 1.0E-115 | 11426038 | NT | Homo sapiens similar to ribosomal protein S26 (H. sapiens) (LOC63436), mRNA |
| 6658 | 19817 | 33204 | 1.68 | 1.0E-115 | 7661883 | NT | Homo sapiens KIAA0054 gene product; Helicase (KIAA0054), mRNA |
| 6658 | 19817 | 33205 | 1.68 | 1.0E-115 | 7661883 | NT | Homo sapiens KIAA0054 gene product; Helicase (KIAA0054), mRNA |
| 7074 | 20127 | 33543 | 0.75 | 1.0E-115 | T86774.1 | EST_HUMAN | yd86b08.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:115095 5' similar to SP:DPOG_YEAST P15801 DNA POLYMERASE GAMMA ; |
| 7428 | 20505 | 33975 | 1.24 | 1.0E-115 | AI076598.1 | EST_HUMAN | oz31e08.x1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1676914 3' |
| 7428 | 20505 | 33976 | 1.24 | 1.0E-115 | AI076598.1 | EST_HUMAN | oz31e08.x1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:1676914 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7246 | 20329 | 33775 | 1 | 1.0E-118 | AL043761.1 | EST_HUMAN | DKFZp434O0127_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434O0127 5' |
| 7776 | 20833 | 34324 | 4.7 | 1.0E-118 | 11431050 | NT | Homo sapiens chromosome 2 open reading frame 3 (C2ORF3), mRNA |
| 7790 | 20846 | 34339 | 0.72 | 1.0E-118 | L46590.1 | NT | Homo sapiens very long chain acyl-CoA dehydrogenase gene, exons 1-20, complete cds |
| 8159 | 21241 | 34761 | 1.95 | 1.0E-118 | BE781223.1 | EST_HUMAN | 601469159F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3872247 5' |
| 8577 | 21658 | 35198 | 7 | 1.0E-118 | BE062855.1 | EST_HUMAN | QV0-BT0263-090200-097-h03 BT0263 Homo sapiens cDNA |
| 8577 | 21658 | 35199 | 7 | 1.0E-118 | BE062855.1 | EST_HUMAN | QV0-BT0263-090200-097-h03 BT0263 Homo sapiens cDNA |
| 8683 | 21664 | 35204 | 1.1 | 1.0E-118 | AA443024.1 | EST_HUMAN | zx98d07.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:811789 5' |
| 8583 | 21664 | 35205 | 1.1 | 1.0E-118 | AA443024.1 | EST_HUMAN | zx98d07.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:811789 5' |
| 8873 | 21952 | 35488 | 0.94 | 1.0E-118 | AB002381.1 | NT | Human mRNA for KIAA0383 gene, partial cds |
| 8873 | 21952 | 35489 | 0.94 | 1.0E-118 | AB002381.1 | NT | Human mRNA for KIAA0383 gene, partial cds |
| 8918 | 21997 | 35536 | 1.94 | 1.0E-118 | 4557732 | NT | Homo sapiens latent transforming growth factor beta binding protein 2 (LTBP2) mRNA |
| 8918 | 21997 | 35537 | 1.94 | 1.0E-118 | 4557732 | NT | Homo sapiens latent transforming growth factor beta binding protein 2 (LTBP2) mRNA |
| 9236 | 22313 | 35855 | 5.15 | 1.0E-118 | BE263134.1 | EST_HUMAN | 601144863F2 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3160502 5' |
| 9266 | 22343 | 35894 | 0.55 | 1.0E-118 | AL048474.2 | EST_HUMAN | DKFZp586K1824_r1 586 (synonym: hute1) Homo sapiens cDNA clone DKFZp586K1824 |
| 9792 | 22832 | 36411 | 1.07 | 1.0E-118 | 7657016 | NT | Homo sapiens hypothetical protein (DJ328E19.C1.1), mRNA |
| 10541 | 23576 | 37184 | 1.23 | 1.0E-118 | BE736213.1 | EST_HUMAN | 601307146F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3641603 5' |
| 10541 | 23676 | 37185 | 1.23 | 1.0E-118 | BE736213.1 | EST_HUMAN | 601307146F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3641603 5' |
| 10586 | 23621 | 37228 | 1.75 | 1.0E-118 | BF195407.1 | EST_HUMAN | 7n17e09.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:3564785 3' similar to SW:ZP3A_HUMAN P21754 ZONA PELLUCIDA SPERM-BINDING PROTEIN 3A PRECURSOR ; |
| 10752 | 23785 | 37399 | 0.59 | 1.0E-118 | AW296351.1 | EST_HUMAN | UI-H-BW0-aio-a-07-0-UI.s1 NCI_CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2729772 3' |
| 11555 | 24610 | 38290 | 3.75 | 1.0E-118 | AA315007.1 | EST_HUMAN | EST186814 HCC cell line (matastasis to liver in mouse) II Homo sapiens cDNA 5' end similar to dynein, light chain 1, cytoplasmic |
| 11855 | 24843 | 38539 | 2.92 | 1.0E-118 | BE908676.1 | EST_HUMAN | 601499514F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3901563 5' |
| 11855 | 24843 | 38540 | 2.92 | 1.0E-118 | BE908676.1 | EST_HUMAN | 601499514F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3901563 5' |
| 12071 | 25052 | 38761 | 1.81 | 1.0E-118 | BE218235.1 | EST_HUMAN | hv36a06.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3175474 3' similar to TR:Q9Z2H4 Q9Z2H4 G PROTEIN-COUPLED RECEPTOR LGR4. ; |
| 776 | 13956 | 27007 | 2.46 | 1.0E-119 | AF170492.1 | NT | Homo sapiens chloride channel CLC4 (ClC4) mRNA, complete cds |
| 1062 | 16029 | 27284 | 0.93 | 1.0E-119 | 7705607 | NT | Homo sapiens CGI-105 protein (LOC51011), mRNA |
| 1987 | 15129 | 28232 | 2.96 | 1.0E-119 | AB023147.1 | NT | Homo sapiens mRNA for KIAA0930 protein, partial cds |
| 3171 | 16346 | 29353 | 1.01 | 1.0E-119 | 8922205 | NT | Homo sapiens hypothetical protein FLJ10052 (FLJ10052), mRNA |
| 3312 | 16485 |  | 2.17 | 1.0E-119 | AA916760.1 | EST_HUMAN | on10b05.s1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1556241 3' similar to WP:E04F6.2 CE01214 ; |
| 4063 | 17219 | 30227 | 1.22 | 1.0E-119 | 4504116 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 5453 | 18653 | 31632 | 3.96 | 1.0E-119 | AU133399.1 | EST_HUMAN | AU133399 NT2RP4 Homo sapiens cDNA clone NT2RP4001991 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5466 | 18666 | 31645 | 15.48 | 1.0E-119 | M89914.1 | NT | Human neurofibromin (NF1) gene, complete cds |
| 5470 | 18670 | 31650 | 3.29 | 1.0E-119 | BE936121.1 | EST_HUMAN | RC1-NN0073-250800-018-g06 NN0073 Homo sapiens cDNA |
| 5550 | 18747 | 31782 | 1.61 | 1.0E-119 | AV693731.1 | EST_HUMAN | AV693731 GKC Homo sapiens cDNA clone GKCDHB03 5' |
| 5707 | 18900 | 32194 | 0.86 | 1.0E-119 | AL134903.1 | EST_HUMAN | DKFZp762M0710_r1 762 (synonym: hmel2) Homo sapiens cDNA clone DKFZp762M0710 5' |
| 5707 | 18900 | 32195 | 0.86 | 1.0E-119 | AL134903.1 | EST_HUMAN | DKFZp762M0710_r1 762 (synonym: hmel2) Homo sapiens cDNA clone DKFZp762M0710 5' |
| 6255 | 19429 | 32775 | 6.7 | 1.0E-119 | AI150703.1 | EST_HUMAN | qb77c09.x1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:1706128 3' similar to SW:K1CJ_MOUSE P02535 KERATIN, TYPE I CYTOSKELETAL 10 ; |
| 6414 | 19583 | 32944 | 0.71 | 1.0E-119 | AF315683.1 | NT | Homo sapiens matrix metalloproteinase 28 (MMP28) mRNA, complete cds |
| 6414 | 19583 | 32945 | 0.71 | 1.0E-119 | AF315683.1 | NT | Homo sapiens matrix metalloproteinase 28 (MMP28) mRNA, complete cds |
| 6461 | 19628 | 32989 | 1.22 | 1.0E-119 | AI476732.1 | EST_HUMAN | tm23f10.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2157451 3' |
| 6589 | 19760 | 33133 | 2.39 | 1.0E-119 | X06292.1 | NT | Human c-fes/fps proto-oncogene |
| 6601 | 19761 | 33149 | 4.01 | 1.0E-119 | AW974193.1 | EST_HUMAN | EST386296 MAGE resequences, MAGM Homo sapiens cDNA |
| 7568 | 20640 | 34116 | 1.09 | 1.0E-119 | BE796614.1 | EST_HUMAN | 601592005F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3946081 5' |
| 8862 | 21941 | 35476 | 0.93 | 1.0E-119 | BE615150.1 | EST_HUMAN | 601280564F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3622526 5' |
| 9957 | 22996 | 36592 | 0.46 | 1.0E-119 | 11545921 | NT | Homo sapiens melanoma differentiation associated protein-5 (MDA5), mRNA |
| 10111 | 23149 | 36750 | 0.96 | 1.0E-119 | 11036643 | NT | Homo sapiens KIAA0477 gene product (KIAA0477), mRNA |
| 10311 | 23346 | 36952 | 0.61 | 1.0E-119 | AI149796.1 | EST_HUMAN | qf43a11.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1752764 3' similar to TR:Q13458 Q13458 GUANINE NUCLEOTIDE EXCHANGE FACTOR PROTEIN TRIO. ; |
| 10452 | 23487 | 37095 | 2.29 | 1.0E-119 | AA465124.1 | EST_HUMAN | aa32f05.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:814977 5' |
| 10722 | 23765 | 37361 | 1.13 | 1.0E-119 | AJ297701.1 | NT | Homo sapiens partial IL-12RB1 gene for IL-12 receptor beta1 chain, exons 16-17 |
| 10766 | 23799 | 37420 | 0.77 | 1.0E-119 | 11425837 | NT | Homo sapiens hypothetical protein FLJ10206 (FLJ10206), mRNA |
| 10766 | 23799 | 37421 | 0.77 | 1.0E-119 | 11425837 | NT | Homo sapiens hypothetical protein FLJ10206 (FLJ10206), mRNA |
| 10844 | 23877 | 37497 | 0.59 | 1.0E-119 | BE561967.1 | EST_HUMAN | 601347190F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3687887 5' |
| 10849 | 23882 | 37502 | 0.73 | 1.0E-119 | AB032261.1 | NT | Homo sapiens Scd mRNA for stearoyl-CoA desaturase, complete cds |
| 11308 | 24373 | 38015 | 1.58 | 1.0E-119 | AJ297701.1 | NT | Homo sapiens partial IL-12RB1 gene for IL-12 receptor beta1 chain, exons 16-17 |
| 11308 | 24373 | 38016 | 1.58 | 1.0E-119 | AJ297701.1 | NT | Homo sapiens partial IL-12RB1 gene for IL-12 receptor beta1 chain, exons 16-17 |
| 11479 | 24538 |  | 6.62 | 1.0E-119 | BF569571.1 | EST_HUMAN | 602186072F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4310633 5' |
| 12490 | 26098 |  | 5.48 | 1.0E-119 | AW847519.1 | EST_HUMAN | RC3-CT0212-240999-011-f03 CT0212 Homo sapiens cDNA |
| 12845 | 25882 |  | 3.03 | 1.0E-119 | X89211.1 | NT | H.sapiens DNA for endogenous retroviral like element |
| 247 | 13468 | 26500 | 0.68 | 1.0E-120 | AB018301.1 | NT | Homo sapiens mRNA for KIAA0758 protein, partial cds |
| 312 | 13528 | 26561 | 0.97 | 1.0E-120 | 4507334 | NT | Homo sapiens synaptojanin 1 (SYNJ1), mRNA |
| 1066 | 14232 | 27290 | 2.74 | 1.0E-120 | AF248540.1 | NT | Homo sapiens intersectin 2 (SH3D1B) mRNA, complete cds |
| 1066 | 14232 | 27291 | 2.74 | 1.0E-120 | AF248540.1 | NT | Homo sapiens intersectin 2 (SH3D1B) mRNA, complete cds |
| 1456 | 14609 | 27689 | 3.26 | 1.0E-120 | N44873.1 | EST_HUMAN | yy40g12.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:273766 5' |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1631 | 14783 | 27869 | 11.19 | 1.0E-120 | AF167706.1 | NT | Homo sapiens cysteine-rich repeat-containing protein S52 precursor, mRNA, complete cds |
| 1849 | 14995 | 28098 | 6.58 | 1.0E-120 | 4557250 | NT | Homo sapiens disintegrin and metalloprotease domain 10 (ADAM10) mRNA |
| 2174 | 15309 | 28437 | 1.83 | 1.0E-120 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 2174 | 15309 | 28438 | 1.83 | 1.0E-120 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 3382 | 13528 | 26561 | 1.61 | 1.0E-120 | 4507334 | NT | Homo sapiens synaptojanin 1 (SYNJ1), mRNA |
| 4477 | 17617 | 30598 | 2.05 | 1.0E-120 | AF056490.1 | NT | Homo sapiens cAMP-specific phosphodiesterase 8A (PDE8A) mRNA, partial cds |
| 4477 | 17617 | 30599 | 2.05 | 1.0E-120 | AF056490.1 | NT | Homo sapiens cAMP-specific phosphodiesterase 8A (PDE8A) mRNA, partial cds |
| 4784 | 17919 | 30906 | 3.11 | 1.0E-120 | AF098463.1 | NT | Homo sapiens stanniocalcin (STC) gene, partial cds |
| 4784 | 17919 | 30907 | 3.11 | 1.0E-120 | AF098463.1 | NT | Homo sapiens stanniocalcin (STC) gene, partial cds |
| 5853 | 19043 | 32349 | 16.08 | 1.0E-120 | BF568222.1 | EST_HUMAN | 602183994F1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300174 5' |
| 5853 | 19043 | 32350 | 16.08 | 1.0E-120 | BF568222.1 | EST_HUMAN | 602183994F1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300174 5' |
| 7746 | 20806 | 34295 | 1.84 | 1.0E-120 | D34619.1 | NT | Human TBXAS1 gene for thromboxane synthase, exon 7 |
| 8078 | 21160 | 34677 | 1.38 | 1.0E-120 | Y00067.1 | NT | Human gene for neurofilament subunit M (NF-M) |
| 8078 | 21160 | 34678 | 1.38 | 1.0E-120 | Y00067.1 | NT | Human gene for neurofilament subunit M (NF-M) |
| 8527 | 21608 | 35147 | 2.31 | 1.0E-120 | BF337599.1 | EST_HUMAN | 602035352F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4183333 5' |
| 8599 | 21680 | 35218 | 0.9 | 1.0E-120 | AB033057.1 | NT | Homo sapiens mRNA for KIAA1231 protein, partial cds |
| 8599 | 21680 | 35219 | 0.9 | 1.0E-120 | AB033057.1 | NT | Homo sapiens mRNA for KIAA1231 protein, partial cds |
| 8603 | 21684 | 35221 | 1.94 | 1.0E-120 | AB007964.1 | NT | Homo sapiens mRNA, chromosome 1 specific transcript KIAA0495 |
| 8603 | 21684 | 35222 | 1.94 | 1.0E-120 | AB007964.1 | NT | Homo sapiens mRNA, chromosome 1 specific transcript KIAA0495 |
| 8647 | 21727 | 35264 | 1.31 | 1.0E-120 | AB007934.1 | NT | Homo sapiens mRNA for KIAA0465 protein, partial cds |
| 9701 | 22750 | 36319 | 4.67 | 1.0E-120 | BE392102.1 | EST_HUMAN | 601307739F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3625544 5' |
| 9701 | 22750 | 36320 | 4.67 | 1.0E-120 | BE392102.1 | EST_HUMAN | 601307739F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3625544 5' |
| 9946 | 22985 | 36578 | 3.54 | 1.0E-120 | BF306541.1 | EST_HUMAN | 601888956F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4122876 5' |
| 9962 | 23001 | 36597 | 6.7 | 1.0E-120 | AU133205.1 | EST_HUMAN | AU133205 NT2RP4 Homo sapiens cDNA clone NT2RP4001541 5' |
| 9979 | 23018 | 36612 | 1.02 | 1.0E-120 | AL049801.1 | NT | Novel human gene mapping to chomosome 13, similar to rat RhoGAP |
| 10096 | 23134 |  | 0.55 | 1.0E-120 | AI904151.1 | EST_HUMAN | CM-BT043-090299-075 BT043 Homo sapiens cDNA |
| 10281 | 23316 | 36916 | 3.4 | 1.0E-120 | AB029000.1 | NT | Homo sapiens mRNA for KIAA1077 protein, partial cds |
| 11391 | 24452 | 38115 | 8.66 | 1.0E-120 | BE296387.1 | EST_HUMAN | 601176727F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532015 5' |
| 11625 | 24705 | 38397 | 2.12 | 1.0E-120 | BE867619.1 | EST_HUMAN | 601443135F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847281 5' |
| 11625 | 24705 | 38398 | 2.12 | 1.0E-120 | BE867619.1 | EST_HUMAN | 601443135F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847281 5' |
| 12657 | 25436 | 32049 | 1.42 | 1.0E-120 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 75 | 13311 | 26337 | 0.62 | 1.0E-121 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 389 | 13595 | 26631 | 1.35 | 1.0E-121 | AU134963.1 | EST_HUMAN | AU134963 PLACE1 Homo sapiens cDNA clone PLACE1000899 5' |
| 742 | 16020 | 26964 | 1.31 | 1.0E-121 | 5032192 | NT | Homo sapiens TNF receptor-associated factor 1 (TRAF1) mRNA |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2023 | 15164 | 28269 | 1 | 1.0E-121 | 4755139 | NT | Homo sapiens inositol polyphosphate-4-phosphatase, type I, 107kD (INPP4A), splice variant a, mRNA |
| 2023 | 15164 | 28270 | 1 | 1.0E-121 | 4755139 | NT | Homo sapiens inositol polyphosphate-4-phosphatase, type I, 107kD (INPP4A), splice variant a, mRNA |
| 2169 | 15304 | 28431 | 1.22 | 1.0E-121 | L76631.1 | NT | Homo sapiens metabotropic glutamate receptor 1 beta (mGluR1beta) mRNA, complete cds |
| 2643 | 15766 | 28880 | 1.07 | 1.0E-121 | BF344378.1 | EST_HUMAN | 602014759F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4150286 5' |
| 2643 | 15766 | 28881 | 1.07 | 1.0E-121 | BF344378.1 | EST_HUMAN | 602014759F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4150286 5' |
| 3150 | 16325 | 29336 | 5.8 | 1.0E-121 | Y19208.1 | NT | Homo sapiens hHb3 gene for hair keratin, exons 1 to 9 |
| 3150 | 16325 | 29337 | 5.8 | 1.0E-121 | Y19208.1 | NT | Homo sapiens hHb3 gene for hair keratin, exons 1 to 9 |
| 3626 | 16790 | 29807 | 1.23 | 1.0E-121 | AB037768.1 | NT | Homo sapiens mRNA for KIAA1337 protein, partial cds |
| 3626 | 16790 | 29808 | 1.23 | 1.0E-121 | AB037758.1 | NT | Homo sapiens mRNA for KIAA1337 protein, partial cds |
| 3768 | 16929 | 29934 | 8.25 | 1.0E-121 | AF155156.2 | NT | Homo sapiens adaptor-related protein complex AP-4 epsilon subunit mRNA, complete cds |
| 4450 | 17590 | 30671 | 1.76 | 1.0E-121 | AI263294.1 | EST_HUMAN | qx57b01.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2005417 3' |
| 5091 | 18219 | 31189 | 3.42 | 1.0E-121 | X91937.1 | NT | H.sapiens ECE-1 gene (exon 17) |
| 5382 | 18584 | 31453 | 0.84 | 1.0E-121 | BE222250.1 | EST_HUMAN | hu09f08.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3166119 3' |
| 5679 | 18873 | 32161 | 0.73 | 1.0E-121 | BE271424.1 | EST_HUMAN | 601140485F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3049820 5' |
| 6757 | 19913 | 33308 | 0.64 | 1.0E-121 | M91463.1 | NT | Human glucose transporter (GLUT4) gene, complete cds |
| 7028 | 20164 |  | 0.96 | 1.0E-121 | AJ271736.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 2/2 |
| 7102 | 18529 | 31483 | 0.79 | 1.0E-121 | AW898086.1 | EST_HUMAN | RC3-NN0066-270400-011-f02 NN0066 Homo sapiens cDNA |
| 7102 | 18529 | 31484 | 0.79 | 1.0E-121 | AW898088.1 | EST_HUMAN | RC3-NN0066-270400-011-f02 NN0066 Homo sapiens cDNA |
| 8123 | 21205 | 34725 | 1.07 | 1.0E-121 | 11436217 | NT | Homo sapiens gamma-aminobutyric acid (GABA) A receptor, alpha 2 (GABRA2), mRNA |
| 8127 | 21209 | 34729 | 2.51 | 1.0E-121 | D84122.1 | NT | Homo sapiens DNA for prostacyclin synthase, exon 8 |
| 8127 | 21209 | 34730 | 2.51 | 1.0E-121 | D84122.1 | NT | Homo sapiens DNA for prostacyclin synthase, exon 8 |
| 10062 | 23100 | 36702 | 1.02 | 1.0E-121 | AW583858.1 | EST_HUMAN | ia05g05.y1 Human Pancreatic Islets Homo sapiens cDNA 5' similar to TR:O75457 O75457 CYTOSOLIC PHOSPHOLIPASE A2-GAMMA. ; |
| 10062 | 23100 | 36703 | 1.02 | 1.0E-121 | AW583858.1 | EST_HUMAN | ia05g05.y1 Human Pancreatic Islets Homo sapiens cDNA 5' similar to TR:O75457 O75457 CYTOSOLIC PHOSPHOLIPASE A2-GAMMA. ; |
| 11015 | 24094 | 37733 | 3.45 | 1.0E-121 | 11427788 | NT | Homo sapiens COX11 (yeast) homolog, cytochrome c oxidase assembly protein (COX11), mRNA |
| 11023 | 24102 | 37740 | 1.94 | 1.0E-121 | AF064200.1 | NT | Homo sapiens UDP-glucuronosyltransferase 2B4 precursor (UGT2B4) mRNA, UGT2B4*E458 allele, complete cds |
| 11211 | 24280 | 37919 | 5.74 | 1.0E-121 | 7330334 | NT | Homo sapiens chloride intracellular channel 4 like (CLIC4L), mRNA |
| 11243 | 24312 | 37950 | 1.93 | 1.0E-121 | N59624.1 | EST_HUMAN | yv74c01.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:248448 3' |
| 278 | 13496 | 26526 | 2.64 | 1.0E-122 | 11526176 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1), mRNA |
| 346 | 13557 | 26585 | 2.33 | 1.0E-122 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 368 | 13577 | 26610 | 2.56 | 1.0E-122 | 11526176 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1), mRNA |
| 905 | 14080 | 27146 | 3.34 | 1.0E-122 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 1247 | 14406 | 27468 | 5.19 | 1.0E-122 | M20707.1 | NT | Human kappa-immunoglobulin germline pseudogene (Chr22.4) variable region (subgroup V kappa II) |
| 1728 | 14878 | 27969 | 18.7 | 1.0E-122 | AF167706.1 | NT | Homo sapiens cysteine-rich repeat-containing protein S52 precursor, mRNA, complete cds |
| 1750 | 14899 | 27995 | 1.61 | 1.0E-122 | 11418424 | NT | Homo sapiens collagen, type XII, alpha 1 (COL12A1), mRNA |
| 1750 | 14899 | 27996 | 1.61 | 1.0E-122 | 11418424 | NT | Homo sapiens collagen, type XII, alpha 1 (COL12A1), mRNA |
| 1857 | 15003 | 28110 | 6.92 | 1.0E-122 | BE906024.1 | EST_HUMAN | 601497032F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3899358 5' |
| 2560 | 15685 | 28810 | 7.43 | 1.0E-122 | BF316170.1 | EST_HUMAN | 601896173F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4125234 5' |
| 2560 | 15685 | 28811 | 7.43 | 1.0E-122 | BF316170.1 | EST_HUMAN | 601896173F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4125234 5' |
| 2901 | 16080 | 29096 | 4.87 | 1.0E-122 | AF264717.1 | NT | Homo sapiens FYVE domain-containing dual specificity protein phosphatase FYVE-DSP2 mRNA, complete cds |
| 4971 | 18100 | 31076 | 3.81 | 1.0E-122 | 4502166 | NT | Homo sapiens amyloid beta (A4) precursor protein (protease nexin-II, Alzheimer disease) (APP), mRNA |
| 5104 | 18232 |  | 1.41 | 1.0E-122 | AW504645.1 | EST_HUMAN | UI-HF-BN0-all-a-03-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3079948 5' |
| 5681 | 18875 | 32164 | 1.2 | 1.0E-122 | BE256039.1 | EST_HUMAN | 601113567F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3354232 5' |
| 6896 | 18875 | 32164 | 6.8 | 1.0E-122 | BE256039.1 | EST_HUMAN | 601113567F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3354232 5' |
| 7363 | 20442 | 33904 | 0.64 | 1.0E-122 | AA868671.1 | EST_HUMAN | ak49h06.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1409339 3' |
| 8996 | 22076 | 35614 | 0.6 | 1.0E-122 | AJ276801.1 | NT | Homo sapiens mRNA for doublesex and mab-3 related transcription factor 1 (DMRT1) |
| 9228 | 22306 | 35849 | 1.17 | 1.0E-122 | 11424216 | NT | Homo sapiens lethal giant larvae (Drosophila) homolog 2 (LLGL2), mRNA |
| 9524 | 22589 | 36159 | 0.96 | 1.0E-122 | AI359618.1 | EST_HUMAN | qy32h07.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2013757 3' similar to SW:MTA1_HUMAN Q13330 METASTASIS-ASSOCIATED PROTEIN MTA1. ; |
| 9524 | 22589 | 36160 | 0.96 | 1.0E-122 | AI359618.1 | EST_HUMAN | qy32h07.x1 NCI_CGAP_Brn23 Homo sapiens cDNA clone IMAGE:2013757 3' similar to SW:MTA1_HUMAN Q13330 METASTASIS-ASSOCIATED PROTEIN MTA1. ; |
| 10338 | 23373 | 36983 | 0.64 | 1.0E-122 | AL117234.1 | NT | Novel human gene mapping to chomosome X, isoform of dbl (proto-oncogene) |
| 11233 | 24302 | 37939 | 2.12 | 1.0E-122 | AW955834.1 | EST_HUMAN | EST367904 MAGE resequences, MAGD Homo sapiens cDNA |
| 11667 | 24744 | 38436 | 1.83 | 1.0E-122 | AB024068.1 | NT | Homo sapiens gene for B120, exon 10 |
| 12231 | 25178 |  | 5.28 | 1.0E-122 | 11418187 | NT | Homo sapiens phosphomannomutase 1 (PMM1), mRNA |
| 789 | 13968 | 27019 | 1.53 | 1.0E-123 | BF345274.1 | EST_HUMAN | 602018058F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4153670 5' |
| 789 | 13968 | 27020 | 1.53 | 1.0E-123 | BF345274.1 | EST_HUMAN | 602018058F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4153670 5' |
| 1038 | 14206 | 27263 | 6.18 | 1.0E-123 | AL163249.2 | NT | Homo sapiens chromosome 21 segment HS21C049 |
| 1047 | 14213 | 27270 | 3.36 | 1.0E-123 | 5803114 | NT | Homo sapiens inner membrane protein, mitochondrial (mitofilin) (IMMT), mRNA |
| 1267 | 14424 | 27491 | 3.83 | 1.0E-123 | 4505818 | NT | Homo sapiens phosphatidylinositol-4-phosphate 5-kinase, type II, beta (PIP5K2B) mRNA, and translated products |

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|---|---|---|---|---|---|---|---|
| 1267 | 14424 | 27492 | 3.83 | 1.0E-123 | 4505818 | NT | Homo sapiens phosphatidylinositol-4-phosphate 5-kinase, type II, beta (PIP5K2B) mRNA, and translated products |
| 2035 | 15176 | 28286 | 0.94 | 1.0E-123 | 11422479 | NT | Homo sapiens similar to sex comb on midleg (Drosophila)-like 2 (H. sapiens) (LOC63782), mRNA |
| 2166 | 15301 | 28427 | 3.21 | 1.0E-123 | M55419.1 | NT | Human amelogenin (AMELY) gene, 3' end of cds |
| 2166 | 15301 | 28428 | 3.21 | 1.0E-123 | M55419.1 | NT | Human amelogenin (AMELY) gene, 3' end of cds |
| 2166 | 15301 | 28429 | 3.21 | 1.0E-123 | M55419.1 | NT | Human amelogenin (AMELY) gene, 3' end of cds |
| 2389 | 15520 | | 4.21 | 1.0E-123 | 7705962 | NT | Homo sapiens RAB9-like protein (LOC51209), mRNA |
| 3322 | 16495 | 29512 | 0.71 | 1.0E-123 | 6912617 | NT | Homo sapiens glutaminyl-peptide cyclotransferase (glutaminyl cyclase) (QPCT), mRNA |
| 5563 | 18760 | 31799 | 1.62 | 1.0E-123 | L34219.1 | NT | Homo sapiens retinaldehyde-binding protein (CRALBP) gene, complete cds |
| 5563 | 18760 | 31800 | 1.62 | 1.0E-123 | L34219.1 | NT | Homo sapiens retinaldehyde-binding protein (CRALBP) gene, complete cds |
| 5699 | 18893 | 32185 | 1.76 | 1.0E-123 | BE799746.1 | EST_HUMAN | 601591108F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3945433 5' |
| 6698 | 19758 | 33146 | 1.93 | 1.0E-123 | AU118435.1 | EST_HUMAN | AU118435 HEMBA1 Homo sapiens cDNA clone HEMBA1003591 5' |
| 7143 | 20278 | 33718 | 0.91 | 1.0E-123 | H53198.1 | EST_HUMAN | yq84a03.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:202444 5' similar to SP:YAK1_YEAST P14680 PROTEIN KINASE YAK1 ; |
| 7156 | 20290 | 33733 | 1.39 | 1.0E-123 | U42224.1 | NT | Human growth hormone releasing hormone gene, exon 7 |
| 7344 | 20424 | 33887 | 0.71 | 1.0E-123 | U55258.1 | NT | Human hBRAVO/Nr-CAM precursor (hBRAVO/Nr-CAM) gene, complete cds |
| 7562 | 20634 | 34109 | 0.83 | 1.0E-123 | 11525833 | NT | Homo sapiens heparan sulfate (glucosamine) 3-O-sulfotransferase 2 (HS3ST2), mRNA |
| 7820 | 20875 | 34374 | 1.31 | 1.0E-123 | 11436439 | NT | Homo sapiens 2'-5'oligoadenylate synthetase 2 (OAS2), mRNA |
| 7829 | 20884 | 34386 | 2.22 | 1.0E-123 | BE263001.1 | EST_HUMAN | 601152815F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3509162 5' |
| 7836 | 20891 | 34393 | 0.6 | 1.0E-123 | 11437202 | NT | Homo sapiens hypothetical protein FLJ20184 (FLJ20184), mRNA |
| 7976 | 21025 | 34538 | 0.6 | 1.0E-123 | N35841.1 | EST_HUMAN | yx89d11.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:268917 5' similar to PIR:S49611 S49611 protein kinase PkpA - Phycomyces blakesleeanus ; |
| 7975 | 21025 | 34539 | 0.6 | 1.0E-123 | N35841.1 | EST_HUMAN | yx89d11.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:268917 5' similar to PIR:S49611 S49611 protein kinase PkpA - Phycomyces blakesleeanus ; |
| 8100 | 21182 | 34701 | 0.79 | 1.0E-123 | AU131881.1 | EST_HUMAN | AU131881 NT2RP3 Homo sapiens cDNA clone NT2RP3003409 5' |
| 8100 | 21182 | 34702 | 0.79 | 1.0E-123 | AU131881.1 | EST_HUMAN | AU131881 NT2RP3 Homo sapiens cDNA clone NT2RP3003409 5' |
| 8732 | 21812 | | 0.7 | 1.0E-123 | AW371924.1 | EST_HUMAN | RC4-BT0311-251199-012-a07 BT0311 Homo sapiens cDNA |
| 9569 | 22711 | 36279 | 2.07 | 1.0E-123 | AB007923.1 | NT | Homo sapiens mRNA for KIAA0454 protein, partial cds |
| 9705 | 22754 | 36325 | 16.77 | 1.0E-123 | U09823.1 | NT | Oryctolagus cuniculus New Zealand white elongation factor 1 alpha (Rabefla2) mRNA, complete cds |
| 12020 | 25004 | 38705 | 4.91 | 1.0E-123 | BF677292.1 | EST_HUMAN | 602086791F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4250879 5' |
| 12020 | 25004 | 38706 | 4.91 | 1.0E-123 | BF677292.1 | EST_HUMAN | 602086791F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4250879 5' |
| 12114 | 25094 | 38798 | 2.71 | 1.0E-123 | AW450931.1 | EST_HUMAN | UI-H-BI3-all-f-10-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2737291 3' |
| 12114 | 25094 | 38799 | 2.71 | 1.0E-123 | AW450931.1 | EST_HUMAN | UI-H-BI3-all-f-10-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2737291 3' |

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|---|---|---|---|---|---|---|---|
| 279 | 13497 | 26527 | 1.02 | 1.0E-124 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 279 | 13497 | 26528 | 1.02 | 1.0E-124 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 285 | 13503 | | 1.49 | 1.0E-124 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 498 | 13693 | 26725 | 2.26 | 1.0E-124 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 709 | 13891 | 26926 | 4 | 1.0E-124 | AA397551.1 | EST_HUMAN | zt81b04.r1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:728719 5' similar to TR:G300482 G300482 POL=REVERSE TRANSCRIPTASE HOMOLOG {RETROVIRAL ELEMENT} ; |
| 709 | 13891 | 26927 | 4 | 1.0E-124 | AA397551.1 | EST_HUMAN | zt81b04.r1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:728719 5' similar to TR:G300482 G300482 POL=REVERSE TRANSCRIPTASE HOMOLOG {RETROVIRAL ELEMENT} ; |
| 777 | 13957 | 27008 | 3.72 | 1.0E-124 | AF155654.1 | NT | Human putative ribosomal protein S1 mRNA |
| 831 | 14009 | 27065 | 2.06 | 1.0E-124 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 927 | 14102 | 27165 | 2.67 | 1.0E-124 | 7705446 | NT | Homo sapiens hypothetical protein (HSPC068), mRNA |
| 1343 | 14499 | 27572 | 0.66 | 1.0E-124 | 11419092 | NT | Homo sapiens ring finger protein (RNF), mRNA |
| 1377 | 14532 | 27605 | 6.42 | 1.0E-124 | AF274892.1 | NT | Homo sapiens glucose transporter 3 gene, exons 9, 10, and complete cds |
| 1377 | 14532 | 27606 | 6.42 | 1.0E-124 | AF274892.1 | NT | Homo sapiens glucose transporter 3 gene, exons 9, 10, and complete cds . |
| 1858 | 15004 | 28111 | 4.06 | 1.0E-124 | AJ131712.1 | NT | Homo sapiens mRNA for nucleolar RNA-helicase (noH61 gene) |
| 2123 | 15269 | 28379 | 2.16 | 1.0E-124 | BE879524.1 | EST_HUMAN | 601491715F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3893954 5' |
| 2528 | 15653 | 28777 | 0.98 | 1.0E-124 | AB024069.1 | NT | Homo sapiens gene for B120, exon 11 |
| 3579 | 16744 | 29761 | 1.06 | 1.0E-124 | S78684.1 | NT | Homo sapiens ATP-sensitive inwardly rectifying K-channel subunit (KCNJ6/BIR1) gene, exon |
| 3579 | 16744 | 29762 | 1.06 | 1.0E-124 | S78684.1 | NT | Homo sapiens ATP-sensitive inwardly rectifying K-channel subunit (KCNJ6/BIR1) gene, exon |
| 3739 | 16900 | 29904 | 1.24 | 1.0E-124 | X13794.1 | NT | H.sapiens lactate dehydrogenase B gene exon 1 and 2 (EC 1.1.1.27) (and joined CDS) |
| 4006 | 17163 | 30170 | 0.64 | 1.0E-124 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 4179 | 17329 | 30321 | 0.69 | 1.0E-124 | 4504116 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 4187 | 17337 | 30330 | 0.98 | 1.0E-124 | 4504116 | NT | Homo sapiens glutamate receptor, ionotropic, kainate 1 (GRIK1) mRNA |
| 4866 | 17999 | 30983 | 2.51 | 1.0E-124 | AB024069.1 | NT | Homo sapiens gene for B120, exon 11 |
| 5050 | 18178 | | 15.32 | 1.0E-124 | M18178.1 | NT | Human fibronectin gene extra type III repeat (EDII), exon x+1 |
| 5205 | 18326 | 31296 | 0.74 | 1.0E-124 | AW963390.1 | EST_HUMAN | EST375463 MAGE resequences, MAGH Homo sapiens cDNA |
| 5412 | 18614 | 31588 | 10.49 | 1.0E-124 | 8922337 | NT | Homo sapiens hypothetical protein FLJ10300 (FLJ10300), mRNA |
| 5789 | 18981 | 32284 | 1.2 | 1.0E-124 | 4506786 | NT | Homo sapiens IQ motif containing GTPase activating protein 1 (IQGAP1) mRNA |
| 6008 | 19193 | 32511 | 6.89 | 1.0E-124 | BF696135.1 | EST_HUMAN | 602124644F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4281635 5' |
| 6298 | 19471 | 32826 | 0.8 | 1.0E-124 | AV711263.1 | EST_HUMAN | AV711263 Cu Homo sapiens cDNA clone CuAADF07 5' |
| 6563 | 19725 | 33103 | 1.12 | 1.0E-124 | 11420654 | NT | Homo sapiens ubiquitin specific protease 9, X chromosome (Drosophila fat facets related) (USP9X), mRNA |
| 7152 | 20286 | 33728 | 3.15 | 1.0E-124 | Y11717.1 | NT | M.musculus mRNA for hoxa3 gene. |
| 7287 | 20370 | 33824 | 0.94 | 1.0E-124 | BE271295.1 | EST_HUMAN | 600943771F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:2966585 5' |

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|---|---|---|---|---|---|---|---|
| 7287 | 20370 | 33825 | 0.94 | 1.0E-124 | BE271295.1 | EST_HUMAN | 600943771F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:2966585 5' |
| 7725 | 20789 | 34278 | 2.38 | 1.0E-124 | AA630331.1 | EST_HUMAN | ac08h05.s1 Stratagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:855897 3' |
| 8453 | 21534 | 35064 | 2.73 | 1.0E-124 | 4506654 | NT | Homo sapiens ribosomal protein L5 (RPL5) mRNA |
| 8657 | 21737 | 35277 | 1.24 | 1.0E-124 | AW612106.1 | EST_HUMAN | hg94a09.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2953240 3' similar to TR:O95162 O95162 PEROXISOMAL SHORT-CHAIN ALCOHOL DEHYDROGENASE. ; |
| 8657 | 21737 | 35278 | 1.24 | 1.0E-124 | AW612106.1 | EST_HUMAN | hg94a09.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2953240 3' similar to TR:O95162 O95162 PEROXISOMAL SHORT-CHAIN ALCOHOL DEHYDROGENASE. ; |
| 9363 | 22438 | 35996 | 0.68 | 1.0E-124 | AI799864.1 | EST_HUMAN | wc43g03.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2321428 3' |
| 9363 | 22438 | 35997 | 0.68 | 1.0E-124 | AI799864.1 | EST_HUMAN | wc43g03.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2321428 3' |
| 9691 | 22740 | 36309 | 1.72 | 1.0E-124 | AV645633.1 | EST_HUMAN | AV645633 GLC Homo sapiens cDNA clone GLCACE04 3' |
| 9691 | 22740 | 36310 | 1.72 | 1.0E-124 | AV645633.1 | EST_HUMAN | AV645633 GLC Homo sapiens cDNA clone GLCACE04 3' |
| 9808 | 22848 | 36426 | 7.77 | 1.0E-124 | AI767133.1 | EST_HUMAN | wi93f02.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2400891 3' |
| 9808 | 22848 | 36427 | 7.77 | 1.0E-124 | AI767133.1 | EST_HUMAN | wi93f02.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2400891 3' |
| 10075 | 23113 | 36717 | 1.46 | 1.0E-124 | AW503755.1 | EST_HUMAN | UI-HF-BN0-akz-b-04-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078846 5' |
| 11302 | 24368 | 38009 | 1.57 | 1.0E-124 | U94776.1 | NT | Human muscle glycogen phosphorylase (PYGM) gene, exons 6 through 17 |
| 11617 | 24668 | 38356 | 3.9 | 1.0E-124 | AW665663.1 | EST_HUMAN | hj05c06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2980906 3' |
| 11761 | 23947 | 37575 | 2.18 | 1.0E-124 | AI446455.1 | EST_HUMAN | tj19e03.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2141980 3' similar to TR:O31662 O31662 YKRS PROTEIN. ; |
| 11761 | 23947 | 37576 | 2.18 | 1.0E-124 | AI446455.1 | EST_HUMAN | tj19e03.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2141980 3' similar to TR:O31662 O31662 YKRS PROTEIN. ; |
| 12310 | 13891 | 26926 | 4.6 | 1.0E-124 | AA397551.1 | EST_HUMAN | zt81b04.r1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:728719 5' similar to TR:G300482 G300482 POL=REVERSE TRANSCRIPTASE HOMOLOG {RETROVIRAL ELEMENT} ; |
| 12310 | 13891 | 26927 | 4.6 | 1.0E-124 | AA397551.1 | EST_HUMAN | zt81b04.r1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:728719 5' similar to TR:G300482 G300482 POL=REVERSE TRANSCRIPTASE HOMOLOG {RETROVIRAL ELEMENT} ; |
| 12780 | 25522 | 32004 | 1.99 | 1.0E-124 | AB029016.1 | NT | Homo sapiens mRNA for KIAA1093 protein, partial cds |
| 13080 | 26038 | 31680 | 2.36 | 1.0E-124 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 13080 | 26038 | 31681 | 2.36 | 1.0E-124 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 329 | 13543 |  | 7.32 | 1.0E-125 | AB032998.1 | NT | Homo sapiens mRNA for KIAA1172 protein, partial cds |
| 439 | 13239 | 26239 | 4.69 | 1.0E-125 | BE743922.1 | EST_HUMAN | 601577981F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3926685 5' |
| 661 | 13847 | 26874 | 2.02 | 1.0E-125 | AI110656.1 | EST_HUMAN | HA0086 Human fetal liver cDNA library Homo sapiens cDNA |
| 661 | 13847 | 26875 | 2.02 | 1.0E-125 | AI110656.1 | EST_HUMAN | HA0086 Human fetal liver cDNA library Homo sapiens cDNA |
| 746 | 13927 | 26968 | 2.42 | 1.0E-125 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 883 | 14059 | 27124 | 1.45 | 1.0E-125 | AA042813.1 | EST_HUMAN | zk53c07.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:486540 3' similar to gb:X65857_cds1 OLFACTORY RECEPTOR-LIKE PROTEIN HGMP07E (HUMAN); |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1023 | 14194 | 27252 | 1.54 | 1.0E-125 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 1177 | 14340 | 27394 | 1.73 | 1.0E-125 | 7662279 | NT | Homo sapiens KIAA0744 gene product; histone deacetylase 7 (KIAA0744), mRNA |
| 1707 | 16045 | 27946 | 1.44 | 1.0E-125 | 7661867 | NT | Homo sapiens KIAA0022 gene product (KIAA0022), mRNA |
| 1854 | 15000 | 28106 | 5.91 | 1.0E-125 | AF015450.1 | NT | Homo sapiens Usurpin-alpha mRNA, complete cds |
| 1854 | 15000 | 28107 | 5.91 | 1.0E-125 | AF015450.1 | NT | Homo sapiens Usurpin-alpha mRNA, complete cds |
| 2433 | 15561 | 28687 | 4.81 | 1.0E-125 | AA011278.1 | EST_HUMAN | zi01g09.r1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:429568 5' |
| 2573 | 15698 | 28820 | 0.96 | 1.0E-125 | AA042813.1 | EST_HUMAN | zk53c07.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:486540 3' similar to gb:X65857_cds1 OLFACTORY RECEPTOR-LIKE PROTEIN HGMP07E (HUMAN); |
| 2661 | 15783 | 28898 | 2.34 | 1.0E-125 | 4504696 | NT | Homo sapiens inhibin, alpha (INHA) mRNA |
| 2661 | 15783 | 28899 | 2.34 | 1.0E-125 | 4504696 | NT | Homo sapiens inhibin, alpha (INHA) mRNA |
| 3961 | 17119 | 30123 | 1.33 | 1.0E-125 | AA042813.1 | EST_HUMAN | zk53c07.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:486540 3' similar to gb:X65857_cds1 OLFACTORY RECEPTOR-LIKE PROTEIN HGMP07E (HUMAN); |
| 4672 | 17807 | 30796 | 1.82 | 1.0E-125 | 11425114 | NT | Homo sapiens zinc finger protein ZNF287 (ZNF287), mRNA |
| 4672 | 17807 | 30797 | 1.82 | 1.0E-125 | 11425114 | NT | Homo sapiens zinc finger protein ZNF287 (ZNF287), mRNA |
| 4739 | 17874 | 30857 | 0.86 | 1.0E-125 | BE315412.1 | EST_HUMAN | 601141152F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3140796 5' |
| 5877 | 19067 | 32375 | 0.65 | 1.0E-125 | BF683645.1 | EST_HUMAN | 602139874F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4300770 5' |
| 5994 | 19179 | 32501 | 1.39 | 1.0E-125 | 11436448 | NT | Homo sapiens KIAA0985 protein (KIAA0985), mRNA |
| 6013 | 19197 | 32514 | 1.2 | 1.0E-125 | BE175169.1 | EST_HUMAN | QV2-HT0577-010500-165-b06 HT0577 Homo sapiens cDNA |
| 6054 | 19236 | 32561 | 3.53 | 1.0E-125 | BE892660.1 | EST_HUMAN | 601433472F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918952 5' |
| 6096 | 19277 | 32606 | 0.85 | 1.0E-125 | AI679904.1 | EST_HUMAN | tu67c07.x1 NCI_CGAP_Gas4 Homo sapiens cDNA clone IMAGE:2256108 3' similar to WP:C45G9.2 CE01854 ; |
| 6412 | 19581 | 32942 | 0.72 | 1.0E-125 | BE736055.1 | EST_HUMAN | 601305670F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3640097 5' |
| 6711 | 19869 | 33259 | 3.71 | 1.0E-125 | BE562526.1 | EST_HUMAN | 601335826F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3689790 5' |
| 6711 | 19869 | 33260 | 3.71 | 1.0E-125 | BE562526.1 | EST_HUMAN | 601335826F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3689790 5' |
| 7207 | 20072 | 33483 | 4.06 | 1.0E-125 | X03427.1 | NT | Homo sapiens IGF-II gene, exon 5 |
| 7207 | 20072 | 33484 | 4.06 | 1.0E-125 | X03427.1 | NT | Homo sapiens IGF-II gene, exon 5 |
| 7700 | 20765 | 34249 | 1.56 | 1.0E-125 | BE278823.1 | EST_HUMAN | 601159076F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3505603 5' |
| 7933 | 20983 | 34491 | 0.59 | 1.0E-125 | 11425572 | NT | Homo sapiens adaptor-related protein complex 2, beta 1 subunit (AP2B1), mRNA |
| 8743 | 21822 | 35357 | 1.49 | 1.0E-125 | U90288.1 | NT | Human chromosome 10 duplicated adrenoleukodystrophy (ALD) gene segment containing exons 8-10 |
| 8743 | 21822 | 35358 | 1.49 | 1.0E-125 | U90288.1 | NT | Human chromosome 10 duplicated adrenoleukodystrophy (ALD) gene segment containing exons 8-10 |
| 9318 | 22394 | 35945 | 4.15 | 1.0E-125 | BE181640.1 | EST_HUMAN | QV1-HT0638-070500-191-d12 HT0638 Homo sapiens cDNA |
| 9318 | 22394 | 35946 | 4.15 | 1.0E-125 | BE181640.1 | EST_HUMAN | QV1-HT0638-070500-191-d12 HT0638 Homo sapiens cDNA |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9581 | 22723 | 36293 | 1.06 | 1.0E-125 | AI565998.1 | EST_HUMAN | tn52b03.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2171981 3' similar to TR:Q14089 Q14089 HYPOTHETICAL PROTEIN ; |
| 10670 | 23704 | 37313 | 0.72 | 1.0E-125 | BE794576.1 | EST_HUMAN | 601590345F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3944531 5' |
| 10712 | 23745 | 37351 | 1.06 | 1.0E-125 | AB002298.1 | NT | Human mRNA for KIAA0300 gene, partial cds |
| 10921 | 24004 | 37639 | 3.03 | 1.0E-125 | AF043458.1 | NT | Homo sapiens I-REL gene, exon 5 |
| 11091 | 24165 | 37802 | 1.34 | 1.0E-125 | 11425570 | NT | Homo sapiens ryanodine receptor 1 (skeletal) (RYR1), mRNA |
| 11357 | 24419 | 38076 | 2.42 | 1.0E-125 | AL040655.1 | EST_HUMAN | DKFZp434N2414_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N2414 5' |
| 11401 | 24462 | 38126 | 3.35 | 1.0E-125 | AB014567.1 | NT | Homo sapiens mRNA for KIAA0667 protein, partial cds |
| 11538 | 24594 |  | 1.63 | 1.0E-125 | R61450.1 | EST_HUMAN | yh15a12.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:37663 5' |
| 11568 | 24623 | 38303 | 2.13 | 1.0E-125 | 7669505 | NT | Homo sapiens myosin, heavy polypeptide 1, skeletal muscle, adult (MYH1), mRNA |
| 11575 | 24630 | 38309 | 5.32 | 1.0E-125 | AF026029.1 | NT | Homo sapiens poly(A) binding protein II (PABP2) gene, complete cds |
| 11686 | 24685 | 38375 | 2.27 | 1.0E-125 | AW812899.1 | EST_HUMAN | RC3-ST0186-250200-018-c11 ST0186 Homo sapiens cDNA |
| 11793 | 24783 | 38479 | 4.71 | 1.0E-125 | BE074267.1 | EST_HUMAN | QV3-BT0569-020200-075-g09 BT0569 Homo sapiens cDNA |
| 11793 | 24783 | 38480 | 4.71 | 1.0E-125 | BE074267.1 | EST_HUMAN | QV3-BT0569-020200-075-g09 BT0569 Homo sapiens cDNA |
| 795 | 13974 | 27027 | 2.16 | 1.0E-126 | 4758007 | NT | Homo sapiens CDC-like kinase (CLK) mRNA |
| 798 | 13977 | 27030 | 1.74 | 1.0E-126 | M61936.1 | NT | Human laminin B1 chain gene, exon 20 |
| 942 | 14116 | 27175 | 1.53 | 1.0E-126 | X68735.1 | NT | H.sapiens gene for alpha1-antichymotrypsin, exon 3 |
| 2663 | 15785 | 28900 | 4.55 | 1.0E-126 | 6382078 | NT | Homo sapiens RAN binding protein 2 (RANBP2), mRNA |
| 3140 | 16316 | 29329 | 8.12 | 1.0E-126 | AA160709.1 | EST_HUMAN | zo72c03.r1 Stratagene pancreas (#937208) Homo sapiens cDNA clone IMAGE:592420 5' |
| 3140 | 16316 | 29330 | 8.12 | 1.0E-126 | AA160709.1 | EST_HUMAN | zo72c03.r1 Stratagene pancreas (#937208) Homo sapiens cDNA clone IMAGE:592420 5' |
| 3719 | 16860 | 29885 | 0.87 | 1.0E-126 | X63941.1 | NT | H.sapiens DNA for liver cytochrome b5 pseudogene |
| 3745 | 16906 | 29910 | 2.52 | 1.0E-126 | 7657038 | NT | Homo sapiens death receptor 6 (DR6), mRNA |
| 4908 | 18038 | 31026 | 1.08 | 1.0E-126 | AF101108.1 | NT | Homo sapiens collagen type XI alpha-1 (COL11A1) gene, exon 63 |
| 4908 | 18038 | 31027 | 1.08 | 1.0E-126 | AF101108.1 | NT | Homo sapiens collagen type XI alpha-1 (COL11A1) gene, exon 63 |
| 4956 | 18086 | 31062 | 1.81 | 1.0E-126 | N34078.1 | EST_HUMAN | yx78c06.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:267850 5' |
| 5820 | 19010 | 32316 | 0.68 | 1.0E-126 | T66998.1 | EST_HUMAN | ya52b12.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:66527 3' |
| 6362 | 19532 | 32891 | 2.91 | 1.0E-126 | AA460075.1 | EST_HUMAN | zx66e03.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:796444 5' similar to TR:G1145880 G1145880 TITIN ; |
| 6419 | 19588 | 32951 | 4.33 | 1.0E-126 | AB040958.1 | NT | Homo sapiens mRNA for KIAA1525 protein, partial cds |
| 6419 | 19588 | 32952 | 4.33 | 1.0E-126 | AB040958.1 | NT | Homo sapiens mRNA for KIAA1525 protein, partial cds |
| 7669 | 20735 | 34212 | 0.9 | 1.0E-126 | AF257737.1 | NT | Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds |
| 7669 | 20735 | 34213 | 0.9 | 1.0E-126 | AF257737.1 | NT | Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds |
| 8062 | 21144 | 34662 | 0.73 | 1.0E-126 | AB037715.1 | NT | Homo sapiens mRNA for KIAA1294 protein, partial cds |
| 8062 | 21144 | 34663 | 0.73 | 1.0E-126 | AB037715.1 | NT | Homo sapiens mRNA for KIAA1294 protein, partial cds |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8177 | 21259 | 34781 | 2.42 | 1.0E-126 | X16609.1 | NT | Human mRNA for ankyrin (variant 2.1) |
| 8377 | 21458 | 34982 | 0.8 | 1.0E-126 | AA483368.1 | EST_HUMAN | *ne74b12.s1 NCI_CGAP_Ew1 Homo sapiens cDNA clone* IMAGE:909983 similar to SW:TSG6_HUMAN P98066 TUMOR NECROSIS FACTOR-INDUCIBLE PROTEIN TSG-6 PRECURSOR ; |
| 10000 | 23038 | 36629 | 0.57 | 1.0E-126 | 4505424 | NT | Homo sapiens neuro-oncological ventral antigen 1 (NOVA1), splice variant 1, mRNA |
| 11099 | 24172 | 37807 | 2.01 | 1.0E-126 | BF683175.1 | EST_HUMAN | 602139138F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4298240 5' |
| 11806 | 24796 | 38494 | 2.2 | 1.0E-126 | BE261660.1 | EST_HUMAN | 601149404F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3502129 5' |
| 12823 | 18500 | 31536 | 6.48 | 1.0E-126 | BE743922.1 | EST_HUMAN | 601577981F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3926685 5' |
| 176 | 13400 | 26429 | 2.92 | 1.0E-127 | AB024597.1 | NT | Homo sapiens mRNA for casein kinase I epsilon, complete cds |
| 176 | 13400 | 26430 | 2.92 | 1.0E-127 | AB024597.1 | NT | Homo sapiens mRNA for casein kinase I epsilon, complete cds |
| 177 | 13400 | 26429 | 2.75 | 1.0E-127 | AB024597.1 | NT | Homo sapiens mRNA for casein kinase I epsilon, complete cds |
| 177 | 13400 | 26430 | 2.75 | 1.0E-127 | AB024597.1 | NT | Homo sapiens mRNA for casein kinase I epsilon, complete cds |
| 284 | 13502 | 26535 | 2.14 | 1.0E-127 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 284 | 13502 | 26536 | 2.14 | 1.0E-127 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 904 | 14079 | 27145 | 1.17 | 1.0E-127 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 939 | 14113 | 27174 | 4.81 | 1.0E-127 | U72621.2 | NT | Homo sapiens lost on transformation LOT1 mRNA, complete cds |
| 1726 | 14876 | 27967 | 2.22 | 1.0E-127 | 4827053 | NT | Homo sapiens ubiquitin specific protease 8 (USP8) mRNA |
| 2127 | 15263 | 28382 | 1.97 | 1.0E-127 | 5803065 | NT | Homo sapiens leukocyte immunoglobulin-like receptor, subfamily A (with TM domain), member 1 (LILRA1), mRNA |
| 2127 | 15263 | 28383 | 1.97 | 1.0E-127 | 5803065 | NT | Homo sapiens leukocyte immunoglobulin-like receptor, subfamily A (with TM domain), member 1 (LILRA1), mRNA |
| 2273 | 15406 | 28535 | 17.46 | 1.0E-127 | 4506620 | NT | Homo sapiens ribosomal protein L26 (RPL26) mRNA |
| 2418 | 15547 | 28675 | 3.12 | 1.0E-127 | AF245505.1 | NT | Homo sapiens adlican mRNA, complete cds |
| 2674 | 15794 | 28911 | 21.46 | 1.0E-127 | X12881.1 | NT | Human mRNA for cytokeratin 18 |
| 3781 | 16942 | 29948 | 0.61 | 1.0E-127 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 3913 | 17072 | 30070 | 0.7 | 1.0E-127 | AW161297.1 | EST_HUMAN | au80e06.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2782594 5' similar to TR:Q15170 Q15170 TRANSCRIPTION FACTOR S-II-RELATED PROTEIN ;contains element MER22 repetitive element ; |
| 4232 | 17379 | 30368 | 0.59 | 1.0E-127 | AF135188.1 | NT | Homo sapiens delayed rectifier potassium channel subunit IsK mRNA, complete cds |
| 4368 | 17511 | 30491 | 24.93 | 1.0E-127 | 7706239 | NT | Homo sapiens neuroblastoma-amplified protein (LOC51594), mRNA |
| 4368 | 17511 | 30492 | 24.93 | 1.0E-127 | 7706239 | NT | Homo sapiens neuroblastoma-amplified protein (LOC51594), mRNA |
| 4618 | 17755 | 30737 | 0.83 | 1.0E-127 | AF252297.1 | NT | Homo sapiens cytochrome P450 retinoid metabolizing protein P450RAI-2 mRNA, complete cds |
| 4725 | 17860 | 30842 | 6.74 | 1.0E-127 | 4506384 | NT | Homo sapiens RAD1 (S. pombe) homolog (RAD1) mRNA, and translated products |
| 4755 | 17890 |  | 2.69 | 1.0E-127 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4795 | 17930 | 30916 | 4.36 | 1.0E-127 | 6912639 | NT | Homo sapiens Ring1 and YY1 binding protein (RYBP), mRNA |
| 5824 | 19014 | 32320 | 1.57 | 1.0E-127 | W03547.1 | EST_HUMAN | za01a10.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:291258 5' similar to SW:PIP6_RAT P10688 1-PHOSPHATIDYLINOSITOL-4,5-BISPHOSPHATE PHOSPHODIESTERASE DELTA 1 ; |
| 5854 | 19044 | 32351 | 0.91 | 1.0E-127 | 4826863 | NT | Homo sapiens neuronal cell adhesion molecule (NRCAM) mRNA |
| 5923 | 19110 | 32423 | 4.18 | 1.0E-127 | X85764.1 | NT | H.sapiens NOS2 gene, exon 6 |
| 6291 | 19464 | 32816 | 2.23 | 1.0E-127 | X84060.1 | NT | H.sapiens TCF11 gene, exon 3-6 |
| 6451 | 19618 | 32981 | 5.73 | 1.0E-127 | 4504778 | NT | Homo sapiens integrin, beta 8 (ITGB8) mRNA |
| 6797 | 19952 | 33352 | 1.09 | 1.0E-127 | 11421595 | NT | Homo sapiens immunoglobulin superfamily, member 3 (IGSF3), mRNA |
| 7208 | 20073 | 33486 | 0.81 | 1.0E-127 | 4826977 | NT | Homo sapiens reelin (RELN) mRNA |
| 7964 | 21014 | 34525 | 1.31 | 1.0E-127 | 11421914 | NT | Homo sapiens Pendred syndrome (PDS), mRNA |
| 7964 | 21014 | 34526 | 1.31 | 1.0E-127 | 11421914 | NT | Homo sapiens Pendred syndrome (PDS), mRNA |
| 7973 | 21023 | 34536 | 0.63 | 1.0E-127 | BF671365.1 | EST_HUMAN | 602151232F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4292575 5' |
| 9088 | 22167 | 35713 | 0.81 | 1.0E-127 | 11427235 | NT | Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA |
| 9088 | 22167 | 35714 | 0.81 | 1.0E-127 | 11427235 | NT | Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA |
| 9840 | 22880 | 36462 | 3.73 | 1.0E-127 | AF274863.1 | NT | Homo sapiens secretory pathway component Sec31B-1 mRNA, alternatively spliced, complete cds |
| 9840 | 22880 | 36463 | 3.73 | 1.0E-127 | AF274863.1 | NT | Homo sapiens secretory pathway component Sec31B-1 mRNA, alternatively spliced, complete cds |
| 10077 | 23116 | 36718 | 0.86 | 1.0E-127 | AI298932.1 | EST_HUMAN | qm94h09.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1896449 3' |
| 10551 | 23586 | 37194 | 0.99 | 1.0E-127 | 11427235 | NT | Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA |
| 11426 | 24487 | 38150 | 5.64 | 1.0E-127 | 11417339 | NT | Homo sapiens similar to heat shock 70kD protein 9B (mortalin-2) (H. sapiens) (LOC63184), mRNA |
| 11426 | 24487 | 38151 | 5.64 | 1.0E-127 | 11417339 | NT | Homo sapiens similar to heat shock 70kD protein 9B (mortalin-2) (H. sapiens) (LOC63184), mRNA |
| 11927 | 24913 | 38614 | 1.55 | 1.0E-127 | BE895415.1 | EST_HUMAN | 601434784F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3919917 5' |
| 11927 | 24913 | 38615 | 1.65 | 1.0E-127 | BE895415.1 | EST_HUMAN | 601434784F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3919917 5' |
| 12539 | 13400 | 26429 | 3.03 | 1.0E-127 | AB024597.1 | NT | Homo sapiens mRNA for casein kinase I epsilon, complete cds |
| 12539 | 13400 | 26430 | 3.03 | 1.0E-127 | AB024597.1 | NT | Homo sapiens mRNA for casein kinase I epsilon, complete cds |
| 12763 | 25507 | 32037 | 1.74 | 1.0E-127 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 13170 | 26044 | | 1.64 | 1.0E-127 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 472 | 13667 | 26700 | 1.66 | 1.0E-128 | BE386617.1 | EST_HUMAN | 601278127F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3618822 5' |
| 1179 | 14342 | 27396 | 0.96 | 1.0E-128 | 4758081 | NT | Homo sapiens chondroitin sulfate proteoglycan 2 (versican) (CSPG2) mRNA |
| 1179 | 14342 | 27397 | 0.96 | 1.0E-128 | 4758081 | NT | Homo sapiens chondroitin sulfate proteoglycan 2 (versican) (CSPG2) mRNA |
| 2132 | 15268 | 28387 | 18.07 | 1.0E-128 | U02523.1 | NT | Human FAU1P pseudogene, trinucleotide repeat regions |
| 2132 | 15268 | 28388 | 18.07 | 1.0E-128 | U02523.1 | NT | Human FAU1P pseudogene, trinucleotide repeat regions |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2283 | 15415 | 28547 | 37.91 | 1.0E-128 | 4506718 | NT | Homo sapiens ribosomal protein S2 (RPS2) mRNA |
| 2516 | 15642 |  | 1.11 | 1.0E-128 | 11437455 | NT | Homo sapiens chromatin-specific transcription elongation factor, 140 kDa subunit (FACTP140), mRNA |
| 3481 | 16648 | 29664 | 1.17 | 1.0E-128 | AB033073.1 | NT | Homo sapiens mRNA for KIAA1247 protein, partial cds |
| 4786 | 17921 | 30909 | 7.27 | 1.0E-128 | 11426673 | NT | Homo sapiens prospero-related homeobox 1 (PROX1), mRNA |
| 5662 | 18856 | 32139 | 0.75 | 1.0E-128 | X69539.1 | NT | H.sapiens gene for inter-alpha-trypsin inhibitor heavy chain H1, exon 12 |
| 6548 | 19710 | 33086 | 1.5 | 1.0E-128 | 11420965 | NT | Homo sapiens phosphodiesterase 1C, calmodulin-dependent (70kD) (PDE1C), mRNA |
| 7070 | 20123 | 33538 | 6.26 | 1.0E-128 | BF224345.1 | EST_HUMAN | 7q86b10.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE: 3' |
| 8745 | 21824 | 35360 | 0.67 | 1.0E-128 | AB007923.1 | NT | Homo sapiens mRNA for KIAA0454 protein, partial cds |
| 8745 | 21824 | 35361 | 0.67 | 1.0E-128 | AB007923.1 | NT | Homo sapiens mRNA for KIAA0454 protein, partial cds |
| 10341 | 23376 | 36987 | 1.29 | 1.0E-128 | AA639198.1 | EST_HUMAN | ns04a11.r1 NCI_CGAP_Ew1 Homo sapiens cDNA clone IMAGE:1182620 similar to TR:G951338 G951338 CHROMOSOME SEGREGATION GENE HOMOLOG CAS. ; |
| 10949 | 24031 | 37666 | 3.54 | 1.0E-128 | 11426254 | NT | Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2D (GRIN2D), mRNA |
| 10957 | 24038 | 37673 | 3.51 | 1.0E-128 | AA926959.1 | EST_HUMAN | om68h08.s1 NCI_CGAP_GC4 Homo sapiens cDNA clone IMAGE:1552383 3' similar to gb:X54941 CYCLIN-DEPENDENT KINASES REGULATORY SUBUNIT 1 (HUMAN); |
| 11210 | 24279 | 37918 | 1.98 | 1.0E-128 | BE887554.1 | EST_HUMAN | 601511912F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913371 5' |
| 12402 | 25282 |  | 4.26 | 1.0E-128 | AW955290.1 | EST_HUMAN | EST367360 MAGE resequences, MAGC Homo sapiens cDNA |
| 124 | 13621 | 26663 | 1.93 | 1.0E-129 | S37722.1 | NT | insulin-like growth factor binding protein-2 [human, placenta, Genomic, 1019 nt, segment 2 of 4] |
| 426 | 13621 | 26663 | 1.65 | 1.0E-129 | S37722.1 | NT | insulin-like growth factor binding protein-2 [human, placenta, Genomic, 1019 nt, segment 2 of 4] |
| 1756 | 14906 | 27999 | 3.74 | 1.0E-129 | AL096880.1 | NT | Novel human mRNA containing Zinc finger C2H2 type domains |
| 1761 | 14910 | 28004 | 1.66 | 1.0E-129 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 1761 | 14910 | 28005 | 1.66 | 1.0E-129 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 1894 | 15037 | 28145 | 4.07 | 1.0E-129 | 11418522 | NT | Homo sapiens zinc finger protein 76 (expressed in testis) (ZNF76), mRNA |
| 2838 | 16952 | 29058 | 2.93 | 1.0E-129 | 4505682 | NT | Homo sapiens platelet-derived growth factor receptor, beta polypeptide (PDGFRB) mRNA |
| 2838 | 15952 | 29059 | 2.93 | 1.0E-129 | 4505682 | NT | Homo sapiens platelet-derived growth factor receptor, beta polypeptide (PDGFRB) mRNA |
| 3198 | 16373 | 29380 | 1.43 | 1.0E-129 | Q14585 | SWISSPROT | ZINC FINGER PROTEIN HZF10 |
| 3198 | 16373 | 29381 | 1.43 | 1.0E-129 | Q14585 | SWISSPROT | ZINC FINGER PROTEIN HZF10 |
| 3198 | 16373 | 29382 | 1.43 | 1.0E-129 | Q14585 | SWISSPROT | ZINC FINGER PROTEIN HZF10 |
| 4279 | 17424 | 30413 | 2.37 | 1.0E-129 | AB040892.1 | NT | Homo sapiens mRNA for KIAA1459 protein, partial cds |
| 4395 | 17538 | 30517 | 2.32 | 1.0E-129 | AW755254.1 | EST_HUMAN | CMYA5 Human cardiac muscle expression library Homo sapiens cDNA clone 4151935 similar to CMYA5 Cardiomyopathy associated gene 5 |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4395 | 17538 | 30518 | 2.32 | 1.0E-129 | AW755254.1 | EST_HUMAN | CMYA5 Human cardiac muscle expression library Homo sapiens cDNA clone 4151935 similar to CMYA5 *Cardiomyopathy associated gene 5* |
| 6216 | 19391 | 32739 | 3.77 | 1.0E-129 | AJ006345.1 | NT | Homo sapiens KVLQT1 gene |
| 6654 | 19813 | 33201 | 0.61 | 1.0E-129 | BE888934.1 | EST_HUMAN | 601513881F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3915350 5' |
| 7277 | 20360 | 33814 | 3.99 | 1.0E-129 | AJ006345.1 | NT | Homo sapiens KVLQT1 gene |
| 7340 | 20420 | 33882 | 4.03 | 1.0E-129 | 11420850 | NT | Homo sapiens similar to ribosomal protein S26 (H. sapiens) (LOC63694), mRNA |
| 7697 | 20762 | 34245 | 1.04 | 1.0E-129 | AF041056.1 | NT | Homo sapiens WSCR4 gene, exons 3 and 4 |
| 7697 | 20762 | 34246 | 1.04 | 1.0E-129 | AF041056.1 | NT | Homo sapiens WSCR4 gene, exons 3 and 4 |
| 8513 | 21594 |  | 3.57 | 1.0E-129 | AB014534.1 | NT | Homo sapiens mRNA for KIAA0634 protein, partial cds |
| 10284 | 23319 | 36920 | 1.03 | 1.0E-129 | 11437282 | NT | Homo sapiens solute carrier family 21 (organic anion transporter), member 9 (SLC21A9), mRNA |
| 10284 | 23319 | 36921 | 1.03 | 1.0E-129 | 11437282 | NT | Homo sapiens solute carrier family 21 (organic anion transporter), member 9 (SLC21A9), mRNA |
| 10730 | 23763 | 37370 | 0.52 | 1.0E-129 | AI199117.1 | EST_HUMAN | qi40d08.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:1858959 3' similar to TR:Q14840 Q14840 MITOGEN INDUCIBLE GENE MIG-2 ; |
| 10730 | 23763 | 37371 | 0.52 | 1.0E-129 | AI199117.1 | EST_HUMAN | qi40d08.x1 NCI_CGAP_Bm25 Homo sapiens cDNA clone IMAGE:1858959 3' similar to TR:Q14840 Q14840 MITOGEN INDUCIBLE GENE MIG-2 ; |
| 11497 | 24556 | 38230 | 3.32 | 1.0E-129 | AA625526.1 | EST_HUMAN | af72f07.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1047589 5' |
| 11578 | 20420 | 33882 | 5.01 | 1.0E-129 | 11420850 | NT | Homo sapiens similar to ribosomal protein S26 (H. sapiens) (LOC63694), mRNA |
| 12387 | 25273 |  | 4.28 | 1.0E-129 | H83155.1 | EST_HUMAN | yq49c05.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:199112 5' similar to SP:B48150 B48150 HP-25=HIBERNATION-RELATED PROTEIN - TAMIAS ASIATICUS=ASIAN ; |
| 12817 | 25544 |  | 1.97 | 1.0E-129 | AL120739.1 | EST_HUMAN | DKFZp762K171_r1 762 (synonym: hmel2) Homo sapiens cDNA clone DKFZp762K171 5' |
| 78 | 13314 | 26341 | 1.01 | 1.0E-130 | 7705530 | NT | Homo sapiens hypothetical protein (HSPC242), mRNA |
| 1197 | 14359 | 27418 | 0.64 | 1.0E-130 | AB037835.1 | NT | Homo sapiens mRNA for KIAA1414 protein, partial cds |
| 1700 | 14852 | 27939 | 22.97 | 1.0E-130 | BE275192.1 | EST_HUMAN | 601121995F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3346366 5' |
| 1700 | 14852 | 27940 | 22.97 | 1.0E-130 | BE275192.1 | EST_HUMAN | 601121995F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3346366 5' |
| 2040 | 15181 |  | 2.63 | 1.0E-130 | X04092.1 | NT | Human gene for catalase (EC 1.11.1.6) exon 9 mapping to chromosome 11, band p13 |
| 2830 | 15944 |  | 7.23 | 1.0E-130 | AJ010230.1 | NT | Homo sapiens RET finger protein-like 1 antisense transcript, partial |
| 2943 | 16120 | 29132 | 1.36 | 1.0E-130 | BE664219.1 | EST_HUMAN | 601343016F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3685466 5' |
| 2943 | 16120 | 29133 | 1.36 | 1.0E-130 | BE564219.1 | EST_HUMAN | 601343016F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3685466 5' |
| 3668 | 16831 | 29842 | 1.03 | 1.0E-130 | AF240698.1 | NT | Homo sapiens retinol dehydrogenase homolog isoform-1 (RDH) mRNA, complete cds |
| 3864 | 16120 | 29132 | 6.31 | 1.0E-130 | BE564219.1 | EST_HUMAN | 601343016F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3685466 5' |
| 3864 | 16120 | 29133 | 6.31 | 1.0E-130 | BE564219.1 | EST_HUMAN | 601343016F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3685466 5' |
| 4047 | 17203 | 30213 | 1.8 | 1.0E-130 | AW503580.1 | EST_HUMAN | UI-HF-BN0-aky-g-06-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3078731 5' |
| 4184 | 17334 | 30326 | 0.91 | 1.0E-130 | M97710.1 | NT | Human T-cell receptor (V alpha 22.1, J alpha RPMI4265-variant, C alpha 1) mRNA |
| 4660 | 17796 | 30782 | 9.77 | 1.0E-130 | AW843993.1 | EST_HUMAN | CM4-CN0045-180200-511-f02 CN0045 Homo sapiens cDNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5208 | 18329 | 31300 | 1.49 | 1.0E-130 | AW363299.1 | EST_HUMAN | RC0-CT0318-201199-031-a11 CT0318 Homo sapiens cDNA |
| 5208 | 18329 | 31301 | 1.49 | 1.0E-130 | AW363299.1 | EST_HUMAN | RC0-CT0318-201199-031-a11 CT0318 Homo sapiens cDNA |
| 6960 | 20188 | 33612 | 1.03 | 1.0E-130 | AW843875.1 | EST_HUMAN | CM0-CN0045-170200-225-g03 CN0045 Homo sapiens cDNA |
| 6960 | 20188 | 33613 | 1.03 | 1.0E-130 | AW843875.1 | EST_HUMAN | CM0-CN0045-170200-225-g03 CN0045 Homo sapiens cDNA |
| 6976 | 20203 | 33630 | 0.85 | 1.0E-130 | 11425446 | NT | Homo sapiens estrogen-responsive B box protein (EBBP), mRNA |
| 7404 | 20482 | 33949 | 1.85 | 1.0E-130 | 11416777 | NT | Homo sapiens solute carrier family 6 (neurotransmitter transporter, L-proline), member 7 (SLC6A7), mRNA |
| 7506 | 20580 | 34052 | 0.63 | 1.0E-130 | AF257737.1 | NT | Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds |
| 7506 | 20580 | 34053 | 0.63 | 1.0E-130 | AF257737.1 | NT | Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds |
| 8881 | 21960 |  | 0.53 | 1.0E-130 | AF008551.1 | NT | Homo sapiens aurora-related kinase 1 (ARK1) mRNA, complete cds |
| 9019 | 22098 | 35638 | 2.06 | 1.0E-130 | AW956242.1 | EST_HUMAN | EST368312 MAGE resequences, MAGD Homo sapiens cDNA |
| 9415 | 22489 | 36054 | 1.82 | 1.0E-130 | AB037756.1 | NT | Homo sapiens mRNA for KIAA1335 protein, partial cds |
| 10137 | 23175 |  | 0.63 | 1.0E-130 | AW103454.1 | EST_HUMAN | xd36e06.x1 NCI_CGAP_Ov23 Homo sapiens cDNA clone IMAGE:2595874 3' |
| 4 | 13243 | 26243 | 2.52 | 0.0E+00 | AA228126.1 | EST_HUMAN | zr58c04.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:667590 5' similar to TR:G222811 G222811 ALPHA 1 CHAIN OF TYPE XII COLLAGEN. ; |
| 4 | 13243 | 26244 | 2.52 | 0.0E+00 | AA228126.1 | EST_HUMAN | zr58c04.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:667590 5' similar to TR:G222811 G222811 ALPHA 1 CHAIN OF TYPE XII COLLAGEN. ; |
| 8 | 13246 | 26248 | 1.14 | 0.0E+00 | 4885136 | NT | Homo sapiens checkpoint suppressor 1 (CHES1), mRNA |
| 16 | 13254 | 26254 | 3.34 | 0.0E+00 | 8923349 | NT | Homo sapiens hypothetical protein FLJ20371 (FLJ20371), mRNA |
| 16 | 13254 | 26255 | 3.34 | 0.0E+00 | 8923349 | NT | Homo sapiens hypothetical protein FLJ20371 (FLJ20371), mRNA |
| 23 | 13261 | 26262 | 3.17 | 0.0E+00 | D83327.1 | NT | Homo sapiens DCRR1 mRNA, partial cds |
| 23 | 13261 | 26263 | 3.17 | 0.0E+00 | D83327.1 | NT | Homo sapiens DCRR1 mRNA, partial cds |
| 27 | 13265 | 26267 | 9 | 0.0E+00 | AF141349.1 | NT | Homo sapiens beta-tubulin mRNA, complete cds |
| 35 | 13273 | 26277 | 0.62 | 0.0E+00 | 5802997 | NT | Homo sapiens Cdc42 effector protein 2 (CEP2), mRNA |
| 37 | 13276 | 26280 | 0.89 | 0.0E+00 | M58600.1 | NT | Human heparin cofactor II (HCF2) gene, exons 1 through 5 |
| 41 | 13279 | 26285 | 4.6 | 0.0E+00 | 6857825 | NT | Homo sapiens RNA-binding protein S1, serine-rich domain (RNPS1), mRNA |
| 58 | 13296 | 26312 | 1.77 | 0.0E+00 | Y17151.2 | NT | Homo sapiens mRNA for multidrug resistance protein 3 (ABCC3) |
| 58 | 13296 | 26313 | 1.77 | 0.0E+00 | Y17151.2 | NT | Homo sapiens mRNA for multidrug resistance protein 3 (ABCC3) |
| 60 | 13298 | 26317 | 1.45 | 0.0E+00 | D78804.1 | EST_HUMAN | HUM516H08B Human placenta polyA+ (TFujiwara) Homo sapiens cDNA clone GEN-516H08 5' |
| 60 | 13298 | 26318 | 1.45 | 0.0E+00 | D78804.1 | EST_HUMAN | HUM516H08B Human placenta polyA+ (TFujiwara) Homo sapiens cDNA clone GEN-516H08 5' |
| 61 | 13299 | 26319 | 9.83 | 0.0E+00 | L16558.1 | NT | Human ribosomal protein L7 (RPL7) mRNA, complete cds |
| 63 | 13301 | 26322 | 16.36 | 0.0E+00 | AW069534.1 | EST_HUMAN | cr48e07.x1 Jia bone marrow stroma Homo sapiens cDNA clone HBMSC_cr48e07 3' |
| 63 | 13301 | 26323 | 16.36 | 0.0E+00 | AW069534.1 | EST_HUMAN | cr48e07.x1 Jia bone marrow stroma Homo sapiens cDNA clone HBMSC_cr48e07 3' |
| 67 | 13304 | 26327 | 2.48 | 0.0E+00 | M60676.1 | NT | Human von Willebrand factor pseudogene corresponding to exons 23 through 34 |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 69 | 13306 | | 23.72 | 0.0E+00 | M60676.1 | NT | Human von Willebrand factor pseudogene corresponding to exons 23 through 34 |
| 77 | 13313 | 26339 | 2.1 | 0.0E+00 | 4758977 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type substrate 1 (PTPNS1) mRNA |
| 77 | 13313 | 26340 | 2.1 | 0.0E+00 | 4758977 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type substrate 1 (PTPNS1) mRNA |
| 80 | 13313 | 26339 | 1.06 | 0.0E+00 | 4758977 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type substrate 1 (PTPNS1) mRNA |
| 80 | 13313 | 26340 | 1.06 | 0.0E+00 | 4758977 | NT | Homo sapiens protein tyrosine phosphatase, non-receptor type substrate 1 (PTPNS1) mRNA |
| 83 | 13318 | 26346 | 0.62 | 0.0E+00 | AA953770.1 | EST_HUMAN | on89e04.s1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:1563870 3' similar to SW:TMOD_HUMAN P28289 TROPOMODULIN. ; |
| 84 | 13319 | 26347 | 16.99 | 0.0E+00 | 4501850 | NT | Homo sapiens amiloride binding protein 1 (amine oxidase (copper-containing)) (ABP1), nuclear gene encoding mitochondrial protein, mRNA |
| 85 | 13320 | | 12.3 | 0.0E+00 | 4504444 | NT | Homo sapiens heterogeneous nuclear ribonucleoprotein A1 (HNRPA1) mRNA |
| 94 | 13329 | 26356 | 23.92 | 0.0E+00 | 5016088 | NT | Homo sapiens actin, beta (ACTB) mRNA |
| 97 | 13332 | 26359 | 40.86 | 0.0E+00 | U89277.1 | NT | Human polyhomeotic 1 homolog (HPH1) mRNA, partial cds |
| 103 | 13339 | 26366 | 2.4 | 0.0E+00 | AI114743.1 | EST_HUMAN | HA1347 Human fetal liver cDNA library Homo sapiens cDNA |
| 104 | 13340 | 26367 | 0.9 | 0.0E+00 | AB037784.1 | NT | Homo sapiens mRNA for KIAA1363 protein, partial cds |
| 110 | 13343 | 26371 | 0.68 | 0.0E+00 | X91213.1 | NT | H.sapiens nox1 gene (exon 2) |
| 118 | 13350 | 26377 | 0.68 | 0.0E+00 | AI623701.1 | EST_HUMAN | ts38b05.x1 NCI_CGAP_Ut4 Homo sapiens cDNA clone IMAGE:2230833 3' similar to TR:Q99551 Q99551 MITOCHONDRIAL TRANSCRIPTION TERMINATION FACTOR PRECURSOR. ; |
| 119 | 13350 | 26377 | 1.58 | 0.0E+00 | AI623701.1 | EST_HUMAN | ts38b05.x1 NCI_CGAP_Ut4 Homo sapiens cDNA clone IMAGE:2230833 3' similar to TR:Q99551 Q99551 MITOCHONDRIAL TRANSCRIPTION TERMINATION FACTOR PRECURSOR. ; |
| 120 | 15980 | 26378 | 1.92 | 0.0E+00 | N36040.1 | EST_HUMAN | yy01h09.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:270017 5' |
| 120 | 16980 | 26379 | 1.92 | 0.0E+00 | N36040.1 | EST_HUMAN | yy01h09.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:270017 5' |
| 123 | 13353 | 26384 | 1.63 | 0.0E+00 | 4505458 | NT | Homo sapiens neuropilin 2 (NRP2) mRNA |
| 133 | 13359 | 26392 | 3.65 | 0.0E+00 | 4505938 | NT | Homo sapiens polymerase (RNA) II (DNA directed) polypeptide A (220kD) (POLR2A) mRNA |
| 133 | 13359 | 26393 | 3.65 | 0.0E+00 | 4505938 | NT | Homo sapiens polymerase (RNA) II (DNA directed) polypeptide A (220kD) (POLR2A) mRNA |
| 141 | 13609 | 26647 | 1.9 | 0.0E+00 | 4503680 | NT | Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA |
| 143 | 13367 | 26400 | 0.7 | 0.0E+00 | T56945.1 | EST_HUMAN | ya83g04.r2 Stratagene fetal spleen (#937205) Homo sapiens cDNA clone IMAGE:68310 5' |
| 143 | 13367 | 26401 | 0.7 | 0.0E+00 | T56945.1 | EST_HUMAN | ya83g04.r2 Stratagene fetal spleen (#937205) Homo sapiens cDNA clone IMAGE:68310 5' |
| 157 | 13382 | | 12.8 | 0.0E+00 | 4504444 | NT | Homo sapiens heterogeneous nuclear ribonucleoprotein A1 (HNRPA1) mRNA |
| 161 | 13386 | 26416 | 2.06 | 0.0E+00 | BF036881.1 | EST_HUMAN | 601460375F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3863803 5' |
| 163 | 13388 | | 98.39 | 0.0E+00 | 4504444 | NT | Homo sapiens heterogeneous nuclear ribonucleoprotein A1 (HNRPA1) mRNA |
| 166 | 13391 | 26419 | 12.6 | 0.0E+00 | AF111168.2 | NT | Homo sapiens serine palmitoyl transferase, subunit II gene, complete cds; and unknown genes |
| 168 | 13393 | 26420 | 1.03 | 0.0E+00 | BE295973.1 | EST_HUMAN | 601174270F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3529864 5' |
| 169 | 13393 | 26420 | 0.79 | 0.0E+00 | BE295973.1 | EST_HUMAN | 601174270F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3529864 5' |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 170 | 13394 | 26421 | 2.4 | 0.0E+00 | W73973.1 | EST_HUMAN | zd62b05.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:346201 5' similar to gb:X16282_cds1 ZINC FINGER PROTEIN CLONE 647 (HUMAN); |
| 171 | 13395 | 26422 | 0.79 | 0.0E+00 | BE162832.1 | EST_HUMAN | QV3-HT0457-140200-088-d04 HT0457 Homo sapiens cDNA |
| 171 | 13395 | 26423 | 0.79 | 0.0E+00 | BE162832.1 | EST_HUMAN | QV3-HT0457-140200-088-d04 HT0457 Homo sapiens cDNA |
| 172 | 13396 | 26424 | 4.73 | 0.0E+00 | AF244088.1 | NT | Homo sapiens zinc finger protein mRNA, complete cds |
| 175 | 13399 | 26427 | 26.75 | 0.0E+00 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 175 | 13399 | 26428 | 26.75 | 0.0E+00 | AL163202.2 | NT | Homo sapiens chromosome 21 segment HS21C002 |
| 185 | 13407 | 26435 | 6.75 | 0.0E+00 | BE018970.1 | EST_HUMAN | bb24e12.y1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:2963854 5' similar to WP:Y57A10A.Z CE22631 ; |
| 185 | 13407 | 26436 | 6.75 | 0.0E+00 | BE018970.1 | EST_HUMAN | bb24e12.y1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:2963854 5' similar to WP:Y57A10A.Z CE22631 ; |
| 190 | 13412 | 26439 | 2.4 | 0.0E+00 | AB018327.1 | NT | Homo sapiens mRNA for KIAA0784 protein, partial cds |
| 190 | 13412 | 26440 | 2.4 | 0.0E+00 | AB018327.1 | NT | Homo sapiens mRNA for KIAA0784 protein, partial cds |
| 191 | 13413 | 26441 | 1.66 | 0.0E+00 | AB018327.1 | NT | Homo sapiens mRNA for KIAA0784 protein, partial cds |
| 191 | 13413 | 26442 | 1.66 | 0.0E+00 | AB018327.1 | NT | Homo sapiens mRNA for KIAA0784 protein, partial cds |
| 199 | 13422 | 26453 | 57.89 | 0.0E+00 | D50659.1 | NT | Human gamma-cytoplasmic actin (ACTGP9) pseudogene |
| 204 | 13427 | 26458 | 3.13 | 0.0E+00 | AF273045.1 | NT | Homo sapiens CTCL tumor antigen se14-3 mRNA, complete cds |
| 204 | 13427 | 26459 | 3.13 | 0.0E+00 | AF273045.1 | NT | Homo sapiens CTCL tumor antigen se14-3 mRNA, complete cds |
| 206 | 13429 | 26461 | 7.71 | 0.0E+00 | AF167174.1 | NT | Homo sapiens chromosome X MSL3-2 protein mRNA, complete cds |
| 206 | 13429 | 26462 | 7.71 | 0.0E+00 | AF167174.1 | NT | Homo sapiens chromosome X MSL3-2 protein mRNA, complete cds |
| 216 | 16007 | 26469 | 12 | 0.0E+00 | AI587308.1 | EST_HUMAN | tq04f08.x1 NCI_CGAP_Ut3 Homo sapiens cDNA clone IMAGE:2207847 3' similar to gb:J03191 PROFILIN I (HUMAN); |
| 216 | 16007 | 26470 | 12 | 0.0E+00 | AI587308.1 | EST_HUMAN | tq04f08.x1 NCI_CGAP_Ut3 Homo sapiens cDNA clone IMAGE:2207847 3' similar to gb:J03191 PROFILIN I (HUMAN); |
| 218 | 13440 | 26472 | 1.93 | 0.0E+00 | AF195658.1 | NT | Homo sapiens DNA mismatch repair protein (MLH3) gene, complete cds |
| 221 | 13443 |  | 11.48 | 0.0E+00 | 4506632 | NT | Homo sapiens ribosomal protein L31 (RPL31) mRNA |
| 222 | 13444 |  | 6.53 | 0.0E+00 | AF132000.1 | NT | Homo sapiens TADA1 protein mRNA, complete cds |
| 228 | 13450 | 26478 | 1.48 | 0.0E+00 | AB018264.1 | NT | Homo sapiens mRNA for KIAA0721 protein, partial cds |
| 229 | 13450 | 26478 | 1.34 | 0.0E+00 | AB018264.1 | NT | Homo sapiens mRNA for KIAA0721 protein, partial cds |
| 230 | 13451 | 26479 | 2.02 | 0.0E+00 | 6678444 | NT | Mus musculus testis-specific protein, Y-encoded-like (Tspyl), mRNA |
| 237 | 13459 | 26483 | 0.89 | 0.0E+00 | BE246780.1 | EST_HUMAN | TCBAP1E4466 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP4466 |
| 237 | 13459 | 26484 | 0.89 | 0.0E+00 | BE246780.1 | EST_HUMAN | TCBAP1E4466 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP4466 |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal. | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 237 | 13459 | 26485 | 0.89 | 0.0E+00 | BE246780.1 | EST_HUMAN | TCBAP1E4466 Pediatric pre-B cell acute lymphoblastic leukemia Baylor-HGSC project=TCBA Homo sapiens cDNA clone TCBAP4466 |
| 246 | 13467 | 26496 | 1.17 | 0.0E+00 | AB018301.1 | NT | *Homo sapiens mRNA for KIAA0758 protein, partial cds* |
| 245 | 13467 | 26497 | 1.17 | 0.0E+00 | AB018301.1 | NT | Homo sapiens mRNA for KIAA0758 protein, partial cds |
| 248 | 13469 | 26501 | 7.54 | 0.0E+00 | 5453805 | NT | Homo sapiens NS1-associated protein 1 (NSAP1) mRNA |
| 250 | 13471 |  | 3.79 | 0.0E+00 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 257 | 13476 | 26507 | 4.65 | 0.0E+00 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 259 | 13478 | 26510 | 1.22 | 0.0E+00 | X89772.1 | NT | H.sapiens mRNA for interferon alpha/beta receptor (long form) |
| 267 | 13486 |  | 5.95 | 0.0E+00 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 280 | 13498 | 26529 | 1.37 | 0.0E+00 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 280 | 13498 | 26530 | 1.37 | 0.0E+00 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 282 | 13500 | 26532 | 1.9 | 0.0E+00 | 7706028 | NT | Homo sapiens hypothetical protein (LOC51250), mRNA |
| 293 | 13510 |  | 0.96 | 0.0E+00 | D83327.1 | NT | Homo sapiens DCRR1 mRNA, partial cds |
| 294 | 13511 | 26545 | 1.2 | 0.0E+00 | D83327.1 | NT | Homo sapiens DCRR1 mRNA, partial cds |
| 294 | 13511 | 26546 | 1.2 | 0.0E+00 | D83327.1 | NT | Homo sapiens DCRR1 mRNA, partial cds |
| 295 | 13512 |  | 1.41 | 0.0E+00 | AW845293.1 | EST_HUMAN | IL2-CT0031-181199-020-B03 CT0031 Homo sapiens cDNA |
| 304 | 13520 | 26553 | 5.65 | 0.0E+00 | 4557029 | NT | Homo sapiens potassium inwardly-rectifying channel, subfamily J, member 15 (KCNJ15) mRNA |
| 304 | 13520 | 26554 | 5.65 | 0.0E+00 | 4557029 | NT | Homo sapiens potassium inwardly-rectifying channel, subfamily J, member 15 (KCNJ15) mRNA |
| 315 | 13531 | 26564 | 6.16 | 0.0E+00 | AB028942.1 | NT | Homo sapiens mRNA for KIAA1019 protein, partial cds |
| 316 | 13532 | 26565 | 4.28 | 0.0E+00 | AB028942.1 | NT | Homo sapiens mRNA for KIAA1019 protein, partial cds |
| 317 | 16010 |  | 8.13 | 0.0E+00 | 4506728 | NT | Homo sapiens ribosomal protein S5 (RPS5) mRNA |
| 318 | 13533 |  | 1.42 | 0.0E+00 | AA480002.1 | EST_HUMAN | zv18c06.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:753994 5' |
| 319 | 13534 | 26566 | 19.55 | 0.0E+00 | 4507152 | NT | Homo sapiens SON DNA binding protein (SON) mRNA |
| 320 | 13534 | 26566 | 24.65 | 0.0E+00 | 4507152 | NT | Homo sapiens SON DNA binding protein (SON) mRNA |
| 324 | 13538 | 26570 | 1.59 | 0.0E+00 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 337 | 13550 | 26579 | 1.15 | 0.0E+00 | O14867 | SWISSPROT | TRANSCRIPTION REGULATOR PROTEIN BACH1 (BTB AND CNC HOMOLOG 1) (HA2303) |
| 337 | 13550 | 26580 | 1.15 | 0.0E+00 | O14867 | SWISSPROT | TRANSCRIPTION REGULATOR PROTEIN BACH1 (BTB AND CNC HOMOLOG 1) (HA2303) |
| 338 | 13551 | 26581 | 4.14 | 0.0E+00 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 339 | 13551 | 26581 | 1.82 | 0.0E+00 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 354 | 13565 | 26593 | 4.38 | 0.0E+00 | 5174574 | NT | *Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4* (MLLT4) mRNA |
| 355 | 13566 | 26594 | 0.74 | 0.0E+00 | 4505256 | NT | Homo sapiens moesin (MSN), mRNA |
| 358 | 13569 | 26598 | 4.58 | 0.0E+00 | 4827057 | NT | Homo sapiens X-box binding protein 1 (XBP1) mRNA |
| 361 | 13572 | 26603 | 0.96 | 0.0E+00 | U71600.1 | NT | Human zinc finger protein zfp31 (zf31) mRNA, partial cds |

Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 366 | 13576 | 26607 | 2.75 | 0.0E+00 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 366 | 13576 | 26608 | 2.75 | 0.0E+00 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 367 | 16011 | 26609 | 2.53 | 0.0E+00 | AF231919.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 369 | 13578 | 26611 | 1.01 | 0.0E+00 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 372 | 13581 | 26615 | 1.59 | 0.0E+00 | 4503854 | NT | Homo sapiens GA-binding protein transcription factor, alpha subunit (60kD) (GABPA), mRNA |
| 373 | 13582 | 26616 | 2 | 0.0E+00 | D80006.1 | NT | Human mRNA for KIAA0184 gene, partial cds |
| 374 | 13582 | 26616 | 1.43 | 0.0E+00 | D80006.1 | NT | Human mRNA for KIAA0184 gene, partial cds |
| 376 | 13584 | 26618 | 0.66 | 0.0E+00 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 387 | 13593 | 26629 | 3.37 | 0.0E+00 | AU134963.1 | EST_HUMAN | AU134963 PLACE1 Homo sapiens cDNA clone PLACE1000899 5' |
| 398 | 13635 | 26673 | 7.56 | 0.0E+00 | AB028942.1 | NT | Homo sapiens mRNA for KIAA1019 protein, partial cds |
| 399 | 13636 | 26674 | 1.08 | 0.0E+00 | AI363014.1 | EST_HUMAN | qy81h05.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2018457 3' similar to gb:X54199 PHOSPHORIBOSYLAMINE--GLYCINE LIGASE (HUMAN); |
| 404 | 13601 | 26636 | 1.32 | 0.0E+00 | AW754160.1 | EST_HUMAN | RC2-CT0320-300100-016-a09 CT0320 Homo sapiens cDNA |
| 407 | 13603 | 26639 | 2.24 | 0.0E+00 | 4503680 | NT | Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA |
| 408 | 13604 | 26640 | 2.34 | 0.0E+00 | 4503680 | NT | Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA |
| 408 | 13604 | 26641 | 2.34 | 0.0E+00 | 4503680 | NT | Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA |
| 409 | 13605 | 26642 | 2.18 | 0.0E+00 | 4503680 | NT | Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA |
| 410 | 13606 | 26643 | 1.42 | 0.0E+00 | 4503680 | NT | Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA |
| 410 | 13606 | 26644 | 1.42 | 0.0E+00 | 4503680 | NT | Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA |
| 411 | 13607 | 26645 | 1.98 | 0.0E+00 | 4503680 | NT | Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA |
| 412 | 13608 | 26646 | 2.65 | 0.0E+00 | 4503680 | NT | Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA |
| 413 | 13609 | 26647 | 2.14 | 0.0E+00 | 4503680 | NT | Homo sapiens IgG Fc binding protein (FC(GAMMA)BP) mRNA |
| 414 | 13610 | 26648 | 0.96 | 0.0E+00 | X74870.1 | NT | H.sapiens gene for RNA pol II largest subunit, exons 23-29 |
| 414 | 13610 | 26649 | 0.96 | 0.0E+00 | X74870.1 | NT | H.sapiens gene for RNA pol II largest subunit, exons 23-29 |
| 415 | 13610 | 26648 | 1.07 | 0.0E+00 | X74870.1 | NT | H.sapiens gene for RNA pol II largest subunit, exons 23-29 |
| 415 | 13610 | 26649 | 1.07 | 0.0E+00 | X74870.1 | NT | H.sapiens gene for RNA pol II largest subunit, exons 23-29 |
| 419 | 13614 |  | 18.46 | 0.0E+00 | 4506608 | NT | Homo sapiens ribosomal protein L19 (RPL19) mRNA |
| 433 | 13233 | 26233 | 1.49 | 0.0E+00 | R17795.1 | EST_HUMAN | yg09a02.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:31652 5' |
| 441 | 13637 | 26675 | 1.39 | 0.0E+00 | 4503914 | NT | Homo sapiens phosphoribosylglycinamide formyltransferase, phosphoribosylglycinamide synthetase, phosphoribosylaminoimidazole synthetase (GART) mRNA |
| 442 | 13638 |  | 3.85 | 0.0E+00 | 4506728 | NT | Homo sapiens ribosomal protein S5 (RPS5) mRNA |
| 443 | 13639 | 26676 | 2.82 | 0.0E+00 | AB028942.1 | NT | Homo sapiens mRNA for KIAA1019 protein, partial cds |
| 444 | 13640 | 26677 | 17.7 | 0.0E+00 | 4507152 | NT | Homo sapiens SON DNA binding protein (SON) mRNA |
| 444 | 13640 | 26678 | 17.7 | 0.0E+00 | 4507152 | NT | Homo sapiens SON DNA binding protein (SON) mRNA |

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## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit · BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 445 | 13641 | 26679 | 4.23 | 0.0E+00 | AF193607.1 | NT | Mus musculus truncated SON protein (Son) mRNA, complete cds |
| 457 | 13652 | | 1.45 | 0.0E+00 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 459 | 13654 | 26692 | 4.44 | 0.0E+00 | 4557879 | NT | Homo sapiens interferon gamma receptor 1 (IFNGR1) mRNA |
| 464 | 13659 | | 0.75 | 0.0E+00 | BE254447.1 | EST_HUMAN | 601111520F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3352348 5' |
| 480 | 13675 | 26706 | 3.38 | 0.0E+00 | 4504532 | NT | Homo sapiens 5-hydroxytryptamine (serotonin) receptor 1B (HTR1B) mRNA |
| 480 | 13675 | 26707 | 3.38 | 0.0E+00 | 4504532 | NT | Homo sapiens 5-hydroxytryptamine (serotonin) receptor 1B (HTR1B) mRNA |
| 486 | 13680 | 26715 | 21.77 | 0.0E+00 | 4557887 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 486 | 13680 | 26716 | 21.77 | 0.0E+00 | 4557887 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 496 | 13691 | 26722 | 4.1 | 0.0E+00 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 497 | 13692 | 26723 | 5.9 | 0.0E+00 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 497 | 13692 | 26724 | 5.9 | 0.0E+00 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 506 | 13700 | 26729 | 4.25 | 0.0E+00 | AB033035.1 | NT | Homo sapiens mRNA for KIAA1209 protein, partial cds |
| 508 | 13702 | 26731 | 1.81 | 0.0E+00 | AU132898.1 | EST_HUMAN | AU132898 NT2RP4 Homo sapiens cDNA clone NT2RP4000837 5' |
| 516 | 13710 | 26737 | 1.66 | 0.0E+00 | BE385144.1 | EST_HUMAN | 601274951F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3615756 5' |
| 517 | 16014 | 26738 | 1.7 | 0.0E+00 | AW938825.1 | EST_HUMAN | PM0-DT0065-130400-002-c06 DT0065 Homo sapiens cDNA |
| 520 | 13713 | 26740 | 1.82 | 0.0E+00 | AL117233.1 | NT | Novel human gene mapping to chomosome 1 |
| 521 | 13714 | 26741 | 0.95 | 0.0E+00 | 8923955 | NT | Homo sapiens PC326 protein (PC326), mRNA |
| 525 | 13718 | | 1.9 | 0.0E+00 | BF373403.1 | EST_HUMAN | IL2-FT0159-070800-120-F07 FT0159 Homo sapiens cDNA |
| 532 | 13725 | 26751 | 4.43 | 0.0E+00 | AL163210.2 | NT | Homo sapiens chromosome 21 segment HS21C010 |
| 539 | 16015 | 26755 | 1.57 | 0.0E+00 | BE081527.1 | EST_HUMAN | QV2-BT0635-160400-142-h05 BT0635 Homo sapiens cDNA |
| 544 | 13737 | 26761 | 1.15 | 0.0E+00 | BF028005.1 | EST_HUMAN | 601764858F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3996998 5' |
| 550 | 13743 | 26768 | 1.57 | 0.0E+00 | AB040909.1 | NT | Homo sapiens mRNA for KIAA1476 protein, partial cds |
| 553 | 13746 | 26771 | 8.39 | 0.0E+00 | 6006030 | NT | Homo sapiens transcription elongation factor B (SIII), polypeptide 1-like (TCEB1L) mRNA |
| 554 | 13747 | 26772 | 4.53 | 0.0E+00 | 4504036 | NT | Homo sapiens guanine nucleotide binding protein (G protein), alpha 11 (Gq class) (GNA11) mRNA |
| 554 | 13747 | 26773 | 4.53 | 0.0E+00 | 4504036 | NT | Homo sapiens guanine nucleotide binding protein (G protein), alpha 11 (Gq class) (GNA11) mRNA |
| 556 | 13749 | 26775 | 0.73 | 0.0E+00 | 8923831 | NT | Homo sapiens anillin (LOC54443), mRNA |
| 557 | 13750 | 26776 | 0.63 | 0.0E+00 | 8923831 | NT | Homo sapiens anillin (LOC54443), mRNA |
| 557 | 13750 | 26777 | 0.63 | 0.0E+00 | 8923831 | NT | Homo sapiens anillin (LOC54443), mRNA |
| 562 | 13754 | | 4.82 | 0.0E+00 | AF003528.1 | NT | Homo sapiens X-linked anhidroitic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |
| 570 | 13762 | 26786 | 1.39 | 0.0E+00 | AW135324.1 | EST_HUMAN | UI-H-BI1-acb-h-04-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2713951 3' |
| 580 | 13772 | | 5.31 | 0.0E+00 | D10083.1 | NT | Homo sapiens RGH1 gene, retrovirus-like element |
| 599 | 13789 | 26810 | 1.85 | 0.0E+00 | 5174742 | NT | Homo sapiens ubiquinol-cytochrome c reductase, Rieske iron-sulfur polypeptide 1 (UQCRFS1), nuclear gene encoding mitochondrial protein, mRNA |

## Table 4

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 612 | 13801 | | 7.14 | 0.0E+00 | J04066.1 | NT | Human apolipoprotein A-I (ApoA-I) gene, exon 1 |
| 615 | 13804 | 26824 | 1.87 | 0.0E+00 | BF104898.1 | EST_HUMAN | 601822627F1 NIH_MGC_75 Homo sapiens cDNA clone IMAGE:4046447 5' |
| 617 | 13806 | 26826 | 0.95 | 0.0E+00 | 8923631 | NT | Homo sapiens hypothetical protein FLJ20701 (FLJ20701), mRNA |
| 617 | 13806 | 26827 | 0.95 | 0.0E+00 | 8923631 | NT | Homo sapiens hypothetical protein FLJ20701 (FLJ20701), mRNA |
| 618 | 13806 | 26826 | 0.77 | 0.0E+00 | 8923631 | NT | Homo sapiens hypothetical protein FLJ20701 (FLJ20701), mRNA |
| 618 | 13806 | 26827 | 0.77 | 0.0E+00 | 8923631 | NT | Homo sapiens hypothetical protein FLJ20701 (FLJ20701), mRNA |
| 619 | 13806 | 26826 | 0.72 | 0.0E+00 | 8923631 | NT | Homo sapiens hypothetical protein FLJ20701 (FLJ20701), mRNA |
| 619 | 13806 | 26827 | 0.72 | 0.0E+00 | 8923631 | NT | Homo sapiens hypothetical protein FLJ20701 (FLJ20701), mRNA |
| 624 | 13809 | 26830 | 0.64 | 0.0E+00 | 4501854 | NT | Homo sapiens acetyl-Coenzyme A carboxylase beta (ACACB), mRNA |
| 629 | 13814 | 26836 | 1.93 | 0.0E+00 | AF221712.1 | NT | Homo sapiens Smad- and Olf-interacting zinc finger protein mRNA, partial cds |
| 629 | 13814 | 26837 | 1.93 | 0.0E+00 | AF221712.1 | NT | Homo sapiens Smad- and Olf-interacting zinc finger protein mRNA, partial cds |
| 639 | 13824 | 26847 | 2.19 | 0.0E+00 | AF149773.1 | NT | Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3 |
| 641 | 13826 | 26850 | 0.93 | 0.0E+00 | AB037807.1 | NT | Homo sapiens mRNA for KIAA1388 protein, partial cds |
| 643 | 13828 | 26851 | 1.99 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 644 | 13829 | 26852 | 2.34 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 644 | 13829 | 26853 | 2.34 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 645 | 13830 | 26854 | 0.98 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 645 | 13830 | 26855 | 0.98 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 652 | 13838 | 26865 | 1.42 | 0.0E+00 | AA399486.1 | EST_HUMAN | zt60c07.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:726732 5' |
| 656 | 13842 | 26869 | 6.57 | 0.0E+00 | D11078.1 | NT | Homo sapiens RGH2 gene, retrovirus-like element |
| 660 | 13846 | 26872 | 4.28 | 0.0E+00 | W78811.1 | EST_HUMAN | zh51b04.r1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:415567 5' similar to gb:A21187 ALPHA-2-MACROGLOBULIN PRECURSOR (HUMAN); |
| 660 | 13846 | 26873 | 4.28 | 0.0E+00 | W78811.1 | EST_HUMAN | zh51b04.r1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:415567 5' similar to gb:A21187 ALPHA-2-MACROGLOBULIN PRECURSOR (HUMAN); |
| 663 | 13849 | | 3.68 | 0.0E+00 | 4885526 | NT | Homo sapiens novel SH2-containing protein 3 (NSP3) mRNA |
| 670 | 13856 | 26885 | 2.16 | 0.0E+00 | 6006003 | NT | Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2B (GRIN2B) mRNA |
| 672 | 13858 | 26888 | 1.25 | 0.0E+00 | 5031624 | NT | Homo sapiens CCAAT-box-binding transcription factor (CBF2) mRNA |
| 675 | 13861 | 26892 | 1.88 | 0.0E+00 | U05235.1 | NT | Human neutral amino acid transporter (ASCT1) gene, exon 8 |
| 679 | 13865 | 26895 | 1.07 | 0.0E+00 | AF108389.1 | NT | Homo sapiens sodium/calcium exchanger isoform NaCa3 (NCX1) mRNA, complete cds |
| 679 | 13865 | 26896 | 1.07 | 0.0E+00 | AF108389.1 | NT | Homo sapiens sodium/calcium exchanger isoform NaCa3 (NCX1) mRNA, complete cds |
| 685 | 13870 | 26901 | 5.11 | 0.0E+00 | 4826947 | NT | Homo sapiens protein kinase, X-linked (PRKX) mRNA |
| 685 | 13870 | 26902 | 5.11 | 0.0E+00 | 4826947 | NT | Homo sapiens protein kinase, X-linked (PRKX) mRNA |
| 691 | 16018 | | 1.8 | 0.0E+00 | X57147.1 | NT | Human endogenous retrovirus pHE.1 (ERV9) |
| 700 | 13883 | 26916 | 3.92 | 0.0E+00 | 4604424 | NT | Homo sapiens high-mobility group (nonhistone chromosomal) protein 1 (HMG1) mRNA |

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 705 | 13888 | 26920 | 4.94 | 0.0E+00 | AB029012.1 | NT | Homo sapiens mRNA for KIAA1089 protein, partial cds |
| 715 | 13897 | 26935 | 3.83 | 0.0E+00 | 7657468 | NT | Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA |
| 727 | 13909 | 26949 | 13.13 | 0.0E+00 | AA614537.1 | EST_HUMAN | np49d01.s1 NCI_CGAP_Br1.1 Homo sapiens cDNA clone IMAGE:1129633 3' similar to gb:X57352 INTERFERON-INDUCIBLE PROTEIN 1-8U (HUMAN); |
| 731 | 13913 | 26953 | 6.4 | 0.0E+00 | M60675.1 | NT | Human von Willebrand factor gene, exons 23 through 34 |
| 731 | 13913 | 26954 | 6.4 | 0.0E+00 | M60675.1 | NT | Human von Willebrand factor gene, exons 23 through 34 |
| 741 | 13923 | 26963 | 1.35 | 0.0E+00 | 5032192 | NT | Homo sapiens TNF receptor-associated factor 1 (TRAF1) mRNA |
| 747 | 13928 | 26969 | 4.62 | 0.0E+00 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 747 | 13928 | 26970 | 4.62 | 0.0E+00 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 749 | 13930 | 26973 | 9.17 | 0.0E+00 | 11545800 | NT | Homo sapiens hypothetical protein FLJ21634 (FLJ21634), mRNA |
| 755 | 13936 | 26981 | 2.26 | 0.0E+00 | BE241577.1 | EST_HUMAN | TCAAP1D0779 Pediatric acute myelogenous leukemia cell (FAB M1) Baylor-HGSC project=TCAA Homo sapiens cDNA clone TCAAP0779 |
| 775 | 13955 | 27005 | 1.19 | 0.0E+00 | AF226990.2 | NT | Homo sapiens MHC class I antigen (HLA-G) mRNA, HLA-G1 allele, complete cds |
| 775 | 13955 | 27006 | 1.19 | 0.0E+00 | AF226990.2 | NT | Homo sapiens MHC class I antigen (HLA-G) mRNA, HLA-G1 allele, complete cds |
| 778 | 13958 | 27009 | 8.92 | 0.0E+00 | J03764.1 | NT | Human, plasminogen activator inhibitor-1 gene, exons 2 to 9 |
| 778 | 13958 | 27010 | 8.92 | 0.0E+00 | J03764.1 | NT | Human, plasminogen activator inhibitor-1 gene, exons 2 to 9 |
| 781 | 13961 | 27011 | 0.96 | 0.0E+00 | AB037760.1 | NT | Homo sapiens mRNA for KIAA1339 protein, partial cds |
| 782 | 13962 | 27012 | 2.07 | 0.0E+00 | 6912749 | NT | Homo sapiens zinc finger protein 212 (ZNF212), mRNA |
| 784 | 16022 | 27014 | 2.36 | 0.0E+00 | D30612.1 | NT | Homo sapiens mRNA for repressor protein, partial cds |
| 785 | 13964 | 27015 | 3.55 | 0.0E+00 | BE869735.1 | EST_HUMAN | 601445647F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3849803 5' |
| 790 | 13969 | 27021 | 4.04 | 0.0E+00 | R48915.1 | EST_HUMAN | yj69g08.r1 Soares breast 2NbHBst Homo sapiens cDNA clone IMAGE:154046 5' |
| 791 | 13970 | 27022 | 2.85 | 0.0E+00 | 5032086 | NT | Homo sapiens splicing factor 3a, subunit 1, 120kD (SF3A1), mRNA |
| 800 | 13979 | 27031 | 1.64 | 0.0E+00 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 803 | 13983 | 27035 | 3.01 | 0.0E+00 | 7661965 | NT | Homo sapiens KIAA0170 gene product (KIAA0170), mRNA |
| 815 | 13994 | 27048 | 1.24 | 0.0E+00 | D80006.1 | NT | Human mRNA for KIAA0184 gene, partial cds |
| 815 | 13994 | 27049 | 1.24 | 0.0E+00 | D80006.1 | NT | Human mRNA for KIAA0184 gene, partial cds |
| 820 | 13999 | 27053 | 2.74 | 0.0E+00 | X89772.1 | NT | H.sapiens mRNA for interferon alpha/beta receptor (long form) |
| 824 | 14003 | 27057 | 3.25 | 0.0E+00 | AB020717.1 | NT | Homo sapiens mRNA for KIAA0910 protein, partial cds |
| 824 | 14003 | 27058 | 3.25 | 0.0E+00 | AB020717.1 | NT | Homo sapiens mRNA for KIAA0910 protein, partial cds |
| 829 | 14007 | 27064 | 13.47 | 0.0E+00 | 5174478 | NT | Homo sapiens pericentrin (PCNT) mRNA |
| 830 | 14008 |  | 11.09 | 0.0E+00 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 847 | 14025 | 27085 | 1.65 | 0.0E+00 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 848 | 14026 | 27086 | 2.46 | 0.0E+00 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 850 | 14028 | 27088 | 1.84 | 0.0E+00 | 4557686 | NT | Homo sapiens potassium voltage-gated channel, Isk-related family, member 1 (KCNE1) mRNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 856 | 14033 | 27094 | 2.19 | 0.0E+00 | AF108830.1 | NT | Homo sapiens serine-threonine protein kinase (MNBH) mRNA, complete cds |
| 856 | 14033 | 27095 | 2.19 | 0.0E+00 | AF108830.1 | NT | Homo sapiens serine-threonine protein kinase (MNBH) mRNA, complete cds |
| 857 | 14034 | 27096 | 1.45 | 0.0E+00 | AF108830.1 | NT | Homo sapiens serine-threonine protein kinase (MNBH) mRNA, complete cds |
| 862 | 14039 | 27101 | 2.85 | 0.0E+00 | 4503854 | NT | Homo sapiens GA-binding protein transcription factor, alpha subunit (60kD) (GABPA), mRNA |
| 866 | 14042 | 27106 | 1.37 | 0.0E+00 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 866 | 14042 | 27107 | 1.37 | 0.0E+00 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 873 | 14049 |  | 2.07 | 0.0E+00 | AF027153.1 | NT | Homo sapiens sodium/myo-inositol cotransporter (SLC5A3) gene, complete cds |
| 877 | 14053 | 27118 | 5.27 | 0.0E+00 | AB028942.1 | NT | Homo sapiens mRNA for KIAA1019 protein, partial cds |
| 877 | 14053 | 27119 | 5.27 | 0.0E+00 | AB028942.1 | NT | Homo sapiens mRNA for KIAA1019 protein, partial cds |
| 878 | 14054 | 27120 | 11.32 | 0.0E+00 | 4507152 | NT | Homo sapiens SON DNA binding protein (SON) mRNA |
| 879 | 14055 | 27121 | 4.03 | 0.0E+00 | AB028942.1 | NT | Homo sapiens mRNA for KIAA1019 protein, partial cds |
| 880 | 14056 | 27122 | 3.87 | 0.0E+00 | 4506728 | NT | Homo sapiens ribosomal protein S5 (RPS5) mRNA |
| 884 | 14060 | 27125 | 1.54 | 0.0E+00 | AB020717.1 | NT | Homo sapiens mRNA for KIAA0910 protein, partial cds |
| 884 | 14060 | 27126 | 1.54 | 0.0E+00 | AB020717.1 | NT | Homo sapiens mRNA for KIAA0910 protein, partial cds |
| 885 | 14061 | 27127 | 1.82 | 0.0E+00 | AA533272.1 | EST_HUMAN | nj66d07.s1 NCI_CGAP_Pr10 Homo sapiens cDNA clone IMAGE:997453 |
| 885 | 14061 | 27128 | 1.82 | 0.0E+00 | AA533272.1 | EST_HUMAN | nj66d07.s1 NCI_CGAP_Pr10 Homo sapiens cDNA clone IMAGE:997453 |
| 886 | 14062 |  | 8.41 | 0.0E+00 | BF677694.1 | EST_HUMAN | 602085579F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4249915 5' |
| 890 | 14066 | 27129 | 1.4 | 0.0E+00 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 890 | 14066 | 27130 | 1.4 | 0.0E+00 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 891 | 14067 | 27131 | 2.54 | 0.0E+00 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 891 | 14067 | 27132 | 2.54 | 0.0E+00 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 914 | 14089 | 27155 | 0.98 | 0.0E+00 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 921 | 14096 | 27160 | 1.93 | 0.0E+00 | BE089592.1 | EST_HUMAN | QV0-BT0703-280400-211-g11 BT0703 Homo sapiens cDNA |
| 921 | 14096 | 27161 | 1.93 | 0.0E+00 | BE089592.1 | EST_HUMAN | QV0-BT0703-280400-211-g11 BT0703 Homo sapiens cDNA |
| 931 | 14108 | 27170 | 2.7 | 0.0E+00 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 941 | 14115 |  | 9.06 | 0.0E+00 | 4504958 | NT | Homo sapiens laminin receptor 1 (67kD, ribosomal protein SA) (LAMR1), mRNA |
| 943 | 14115 |  | 9.69 | 0.0E+00 | 4504958 | NT | Homo sapiens laminin receptor 1 (67kD, ribosomal protein SA) (LAMR1), mRNA |
| 944 | 14117 | 27176 | 1.42 | 0.0E+00 | AF089747.1 | NT | Homo sapiens alpha-1-antichymotrypsin precursor, mRNA, partial cds |
| 945 | 14118 | 27177 | 0.69 | 0.0E+00 | S69364.1 | NT | protein C inhibitor [human, leukocytes, Genomic, 1216 nt, segment 2 of 5] |
| 945 | 14118 | 27178 | 0.69 | 0.0E+00 | S69364.1 | NT | protein C inhibitor [human, leukocytes, Genomic, 1216 nt, segment 2 of 5] |
| 945 | 14118 | 27179 | 0.69 | 0.0E+00 | S69364.1 | NT | protein C inhibitor [human, leukocytes, Genomic, 1216 nt, segment 2 of 5] |
| 946 | 14119 | 27180 | 1.62 | 0.0E+00 | L28101.1 | NT | Homo sapiens kallistatin (PI4) gene, exons 1-4, complete cds |
| 949 | 14122 | 27183 | 0.71 | 0.0E+00 | Z20656.1 | NT | Homo sapiens of cardiac alpha-myosin heavy chain gene |
| 949 | 14122 | 27184 | 0.71 | 0.0E+00 | Z20656.1 | NT | Homo sapiens of cardiac alpha-myosin heavy chain gene |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 973 | 14146 | 27205 | 0.93 | 0.0E+00 | M37190.1 | NT | Human ras inhibitor mRNA, 3' end |
| 974 | 14147 | 27206 | 9.11 | 0.0E+00 | M37190.1 | NT | Human ras inhibitor mRNA, 3' end |
| 975 | 14148 | 27207 | 0.79 | 0.0E+00 | M37190.1 | NT | Human ras inhibitor mRNA, 3' end |
| 976 | 14149 | 27208 | 1.24 | 0.0E+00 | 4507430 | NT | Homo sapiens thyrotrophic embryonic factor (TEF), mRNA |
| 976 | 14149 | 27209 | 1.24 | 0.0E+00 | 4507430 | NT | Homo sapiens thyrotrophic embryonic factor (TEF), mRNA |
| 984 | 16027 | 27216 | 3.95 | 0.0E+00 | AI001948.1 | EST_HUMAN | os98e03.s1 NCI_CGAP_GC3 Homo sapiens cDNA clone IMAGE:1613404 3' |
| 984 | 16027 | 27217 | 3.95 | 0.0E+00 | AI001948.1 | EST_HUMAN | os98e03.s1 NCI_CGAP_GC3 Homo sapiens cDNA clone IMAGE:1613404 3' |
| 986 | 14158 | 27219 | 14.34 | 0.0E+00 | 7657266 | NT | Homo sapiens KIAA0929 protein Msx2 interacting nuclear target (MINT) homolog (KIAA0929), mRNA |
| 997 | 14168 | 27229 | 1.76 | 0.0E+00 | AB030566.1 | NT | Homo sapiens mRNA for PSP24, complete cds |
| 1006 | 14177 | 27236 | 43.62 | 0.0E+00 | BF366974.1 | EST_HUMAN | PM2-GN0014-050900-001-f02 GN0014 Homo sapiens cDNA |
| 1006 | 14177 | 27237 | 43.62 | 0.0E+00 | BF366974.1 | EST_HUMAN | PM2-GN0014-050900-001-f02 GN0014 Homo sapiens cDNA |
| 1006 | 14177 | 27238 | 43.62 | 0.0E+00 | BF366974.1 | EST_HUMAN | PM2-GN0014-050900-001-f02 GN0014 Homo sapiens cDNA |
| 1008 | 14179 | 27241 | 2.02 | 0.0E+00 | X52207.1 | NT | Homo sapiens partial c-fgr gene, exons 2 and 3 |
| 1008 | 14179 | 27242 | 2.02 | 0.0E+00 | X52207.1 | NT | Homo sapiens partial c-fgr gene, exons 2 and 3 |
| 1017 | 14188 | 27249 | 3.97 | 0.0E+00 | 4757969 | NT | Homo sapiens chromodomain protein, Y chromosome-like (CDYL) mRNA |
| 1029 | 14199 | 27257 | 1.07 | 0.0E+00 | U83668.1 | NT | Human beta-tubulin (TUB4q) gene, complete cds |
| 1030 | 14200 | 27258 | 5.81 | 0.0E+00 | U83668.1 | NT | Human beta-tubulin (TUB4q) gene, complete cds |
| 1031 | 14200 | 27258 | 9.09 | 0.0E+00 | U83668.1 | NT | Human beta-tubulin (TUB4q) gene, complete cds |
| 1034 | 14203 |  | 4 | 0.0E+00 | AF198490.1 | NT | Homo sapiens 8q22.1 region and MTG8 (CBFA2T1) gene, partial cds |
| 1035 | 14203 |  | 29.66 | 0.0E+00 | AF198490.1 | NT | Homo sapiens 8q22.1 region and MTG8 (CBFA2T1) gene, partial cds |
| 1039 | 14207 | 27264 | 0.96 | 0.0E+00 | AF111170.3 | NT | Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene |
| 1040 | 14207 | 27264 | 4.66 | 0.0E+00 | AF111170.3 | NT | Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene |
| 1041 | 14207 | 27264 | 1.3 | 0.0E+00 | AF111170.3 | NT | Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene |
| 1042 | 14208 | 27265 | 1.18 | 0.0E+00 | AF111170.3 | NT | Homo sapiens 14q32 Jagged2 gene, complete cds; and unknown gene |
| 1045 | 14211 | 27268 | 2.11 | 0.0E+00 | 7661685 | NT | Homo sapiens DKFZP586M0122 protein (DKFZP586M0122), mRNA |
| 1049 | 14216 | 27272 | 1.27 | 0.0E+00 | 5803114 | NT | Homo sapiens inner membrane protein, mitochondrial (mitofilin) (IMMT), mRNA |
| 1051 | 14217 |  | 1.39 | 0.0E+00 | AA458680.1 | EST_HUMAN | aa86g07.s1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:838236 3' similar to SW:PRS8_HUMAN P47210 26S PROTEASE REGULATORY SUBUNIT 8 ; |
| 1054 | 14220 | 27277 | 2.43 | 0.0E+00 | N43182.1 | EST_HUMAN | EST51I24 WATM1 Homo sapiens cDNA clone 51I24 similar to DNA-DIRECTED RNA POLYMERASE II (alignment Ser and Pro with BLASTx or p) |
| 1054 | 14220 | 27278 | 2.43 | 0.0E+00 | N43182.1 | EST_HUMAN | EST51I24 WATM1 Homo sapiens cDNA clone 51I24 similar to DNA-DIRECTED RNA POLYMERASE II (alignment Ser and Pro with BLASTx or p) |
| 1055 | 14221 | 27279 | 0.97 | 0.0E+00 | 4759249 | NT | Homo sapiens TRAF family member-associated NFKB activator (TANK) mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1055 | 14221 | 27280 | 0.97 | 0.0E+00 | 4759249 | NT | Homo sapiens TRAF family member-associated NFKB activator (TANK) mRNA |
| 1058 | 14224 | | 3.27 | 0.0E+00 | 8922933 | NT | Homo sapiens hypothetical protein FLJ11196 (FLJ11196), mRNA |
| 1072 | 14238 | 27295 | 1.51 | 0.0E+00 | 4758569 | NT | Homo sapiens heat shock 70kD protein 9B (mortalin-2) (HSPA9B) mRNA |
| 1090 | 14255 | 27310 | 1.51 | 0.0E+00 | 4826672 | NT | Homo sapiens cadherin 6, K-cadherin (fetal kidney) (CDH6) mRNA |
| 1090 | 14255 | 27311 | 1.51 | 0.0E+00 | 4826672 | NT | Homo sapiens cadherin 6, K-cadherin (fetal kidney) (CDH6) mRNA |
| 1094 | 14259 | 27315 | 2.74 | 0.0E+00 | 8923624 | NT | Homo sapiens hypothetical protein FLJ20695 (FLJ20695), mRNA |
| 1094 | 14259 | 27316 | 2.74 | 0.0E+00 | 8923624 | NT | Homo sapiens hypothetical protein FLJ20695 (FLJ20695), mRNA |
| 1095 | 14260 | 27317 | 13.57 | 0.0E+00 | AJ245922.1 | NT | Homo sapiens mRNA for alpha-tubulin 8 (TUBA8 gene) |
| 1097 | 14262 | | 0.92 | 0.0E+00 | 8923087 | NT | Homo sapiens hypothetical protein FLJ20080 (FLJ20080), mRNA |
| 1099 | 14264 | 27321 | 2.81 | 0.0E+00 | 5174384 | NT | Homo sapiens alkylation repair; alkB homolog (ABH), mRNA |
| 1106 | 14271 | 27330 | 2.04 | 0.0E+00 | 4758117 | NT | Homo sapiens Death associated protein 3 (DAP3) mRNA |
| 1120 | 14285 | 27340 | 1.91 | 0.0E+00 | BE005208.1 | EST_HUMAN | MR0-BN0115-200300-003-h08 BN0115 Homo sapiens cDNA |
| 1143 | 14308 | 27364 | 3.82 | 0.0E+00 | 7706134 | NT | Homo sapiens potassium channel, subfamily K, member 9 (KCNK9), mRNA |
| 1143 | 14308 | 27365 | 3.82 | 0.0E+00 | 7706134 | NT | Homo sapiens potassium channel, subfamily K, member 9 (KCNK9), mRNA |
| 1155 | 14319 | 27373 | 0.82 | 0.0E+00 | 4826947 | NT | Homo sapiens protein kinase, X-linked (PRKX) mRNA |
| 1155 | 14319 | 27374 | 0.82 | 0.0E+00 | 4826947 | NT | Homo sapiens protein kinase, X-linked (PRKX) mRNA |
| 1156 | 14320 | 27375 | 9.36 | 0.0E+00 | 4506712 | NT | Homo sapiens ribosomal protein S27a (RPS27A) mRNA |
| 1158 | 14322 | 27377 | 1.2 | 0.0E+00 | 8923290 | NT | Homo sapiens hypothetical protein FLJ20309 (FLJ20309), mRNA |
| 1161 | 14325 | 27380 | 3.95 | 0.0E+00 | AB002059.1 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 1163 | 14327 | 27381 | 19.6 | 0.0E+00 | AB002059.1 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 1164 | 14328 | 27382 | 4.52 | 0.0E+00 | 7657468 | NT | Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA |
| 1164 | 14328 | 27383 | 4.52 | 0.0E+00 | 7657468 | NT | Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA |
| 1168 | 14331 | 27386 | 1.44 | 0.0E+00 | 7706500 | NT | Homo sapiens Npw38-binding protein NpwBP (LOC51729), mRNA |
| 1169 | 14332 | 27387 | 0.71 | 0.0E+00 | X95826.1 | NT | H.sapiens ART4 gene |
| 1169 | 14332 | 27388 | 0.71 | 0.0E+00 | X95826.1 | NT | H.sapiens ART4 gene |
| 1170 | 14333 | 27389 | 1.15 | 0.0E+00 | AI147650.1 | EST_HUMAN | qb22d10.x1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:1697011 3' |
| 1172 | 14335 | 27391 | 1.62 | 0.0E+00 | AB020710.1 | NT | Homo sapiens mRNA for KIAA0903 protein, partial cds |
| 1181 | 14344 | 27400 | 1.22 | 0.0E+00 | 4758081 | NT | Homo sapiens chondroitin sulfate proteoglycan 2 (versican) (CSPG2) mRNA |
| 1181 | 14344 | 27401 | 1.22 | 0.0E+00 | 4758081 | NT | Homo sapiens chondroitin sulfate proteoglycan 2 (versican) (CSPG2) mRNA |
| 1182 | 14345 | 27402 | 1.32 | 0.0E+00 | 9966844 | NT | Homo sapiens chromosome 12 open reading frame 3 (C12ORF3), mRNA |
| 1195 | 14357 | 27415 | 2.19 | 0.0E+00 | 7305076 | NT | Homo sapiens glutamate decarboxylase 1 (brain, 67kD) (GAD1), transcript variant GAD25, mRNA |
| 1195 | 14357 | 27416 | 2.19 | 0.0E+00 | 7305076 | NT | Homo sapiens glutamate decarboxylase 1 (brain, 67kD) (GAD1), transcript variant GAD25, mRNA |
| 1198 | 14360 | 27419 | 1.09 | 0.0E+00 | AB037835.1 | NT | Homo sapiens mRNA for KIAA1414 protein, partial cds |
| 1205 | 14367 | 27428 | 8.64 | 0.0E+00 | 4557887 | NT | Homo sapiens keratin 18 (KRT18) mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1236 | 14395 | | 1.28 | 0.0E+00 | 7657336 | NT | Homo sapiens mutL (E. coli) homolog 3 (MLH3), mRNA |
| 1250 | 14409 | 27471 | 0.94 | 0.0E+00 | 8922593 | NT | Homo sapiens hypothetical protein FLJ10697 (FLJ10697), mRNA |
| 1254 | 14413 | 27475 | 2.89 | 0.0E+00 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 1254 | 14413 | 27476 | 2.89 | 0.0E+00 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 1255 | 14414 | 27477 | 3.33 | 0.0E+00 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 1256 | 16032 | 27478 | 2.46 | 0.0E+00 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 1275 | 14432 | 27503 | 4.86 | 0.0E+00 | AF109718.1 | NT | Homo sapiens chromosome 3 subtelomeric region |
| 1276 | 14433 | 27504 | 1.67 | 0.0E+00 | 4503098 | NT | Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA |
| 1286 | 14442 | 27510 | 0.69 | 0.0E+00 | 4505740 | NT | Homo sapiens prefoldin 4 (PFDN4) mRNA |
| 1295 | 14451 | | 1.38 | 0.0E+00 | Y18000.1 | NT | Homo sapiens NF2 gene |
| 1303 | 14459 | 27525 | 29.86 | 0.0E+00 | 4506718 | NT | Homo sapiens ribosomal protein S2 (RPS2) mRNA |
| 1310 | 14466 | 27534 | 2.96 | 0.0E+00 | AF084479.1 | NT | Homo sapiens Williams-Beuren syndrome deletion transcript 9 (WBSCR9) mRNA, complete cds |
| 1316 | 14472 | 27538 | 1.63 | 0.0E+00 | AB040940.1 | NT | Homo sapiens mRNA for KIAA1507 protein, partial cds |
| 1316 | 14472 | 27539 | 1.63 | 0.0E+00 | AB040940.1 | NT | Homo sapiens mRNA for KIAA1507 protein, partial cds |
| 1328 | 14485 | 27562 | 3.28 | 0.0E+00 | 5174748 | NT | Homo sapiens Wolfram syndrome (WFS) mRNA |
| 1328 | 14485 | 27563 | 3.28 | 0.0E+00 | 5174748 | NT | Homo sapiens Wolfram syndrome (WFS) mRNA |
| 1328 | 14485 | 27564 | 3.28 | 0.0E+00 | 5174748 | NT | Homo sapiens Wolfram syndrome (WFS) mRNA |
| 1329 | 14486 | | 2.16 | 0.0E+00 | AF096156.1 | NT | Homo sapiens protein phosphatase 2A BR gamma subunit gene, exon 5 |
| 1339 | 16034 | 27566 | 1.2 | 0.0E+00 | 7657529 | NT | Homo sapiens rhabdoid tumor deletion region protein 1 (RTDR1), mRNA |
| 1339 | 16034 | 27567 | 1.2 | 0.0E+00 | 7657529 | NT | Homo sapiens rhabdoid tumor deletion region protein 1 (RTDR1), mRNA |
| 1345 | 15991 | 27573 | 1.4 | 0.0E+00 | Y07829.2 | NT | Homo sapiens RFB30 gene for RING finger protein |
| 1346 | 14501 | 27574 | 1.86 | 0.0E+00 | 5803146 | NT | Homo sapiens ring finger protein 9 (RNF9), mRNA |
| 1347 | 14502 | 27575 | 0.83 | 0.0E+00 | 4508004 | NT | Homo sapiens zinc finger protein 173 (ZNF173) mRNA |
| 1349 | 14504 | 27576 | 1.7 | 0.0E+00 | Y07829.2 | NT | Homo sapiens RFB30 gene for RING finger protein |
| 1350 | 14505 | 27577 | 1.55 | 0.0E+00 | 5803146 | NT | Homo sapiens ring finger protein 9 (RNF9), mRNA |
| 1351 | 14506 | 27578 | 0.71 | 0.0E+00 | 4508004 | NT | Homo sapiens zinc finger protein 173 (ZNF173) mRNA |
| 1353 | 14508 | 27580 | 4.44 | 0.0E+00 | AB011149.1 | NT | Homo sapiens mRNA for KIAA0577 protein, complete cds |
| 1354 | 14509 | 27581 | 1.34 | 0.0E+00 | 7661965 | NT | Homo sapiens KIAA0170 gene product (KIAA0170), mRNA |
| 1355 | 14510 | 27582 | 4.99 | 0.0E+00 | 7661965 | NT | Homo sapiens KIAA0170 gene product (KIAA0170), mRNA |
| 1356 | 14511 | 27583 | 3.83 | 0.0E+00 | 8567387 | NT | Homo sapiens period (Drosophila) homolog 3 (PER3), mRNA |
| 1356 | 14511 | 27584 | 3.83 | 0.0E+00 | 8567387 | NT | Homo sapiens period (Drosophila) homolog 3 (PER3), mRNA |
| 1368 | 14522 | 27597 | 1.36 | 0.0E+00 | M14123.1 | NT | Human endogenous retrovirus HERV-K10 |
| 1429 | 14583 | 27656 | 1.02 | 0.0E+00 | BE257955.1 | EST_HUMAN | 601109792F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350471 5' |
| 1429 | 14583 | 27657 | 1.02 | 0.0E+00 | BE257955.1 | EST_HUMAN | 601109792F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350471 5' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1440 | 14593 | 27668 | 1.03 | 0.0E+00 | AJ250014.1 | NT | Homo sapiens mRNA for Familial Cylindromatosis cyld gene |
| 1449 | 14602 | 27680 | 13.57 | 0.0E+00 | 6042206 | NT | RAN, member RAS oncogene familyHomo sapiens RAN, member RAS oncogene family (RAN), mRNA |
| 1457 | 14610 | 27690 | 0.97 | 0.0E+00 | 4505646 | NT | Homo sapiens proprotein convertase subtilisin/kexin type 2 (PCSK2) mRNA |
| 1457 | 14610 | 27691 | 0.97 | 0.0E+00 | 4505646 | NT | Homo sapiens proprotein convertase subtilisin/kexin type 2 (PCSK2) mRNA |
| 1459 | 14612 | 27694 | 1.99 | 0.0E+00 | 7705565 | NT | Homo sapiens KIAA1114 protein (KIAA1114), mRNA |
| 1459 | 14612 | 27695 | 1.99 | 0.0E+00 | 7705565 | NT | Homo sapiens KIAA1114 protein (KIAA1114), mRNA |
| 1462 | 14615 | 27697 | 29.09 | 0.0E+00 | AJ238093.1 | NT | Homo sapiens partial AF-4 gene, exons 2 to 7 and Alu repeat elements |
| 1471 | 14625 | 27709 | 4.63 | 0.0E+00 | AF038280.1 | NT | Homo sapiens alpha1-6fucosyltransferase (alpha1-6FucT) gene, exon 7 |
| 1490 | 14643 | 27724 | 4.2 | 0.0E+00 | AL132999.1 | NT | Novel human gene on chromosome 20 |
| 1491 | 14644 | 27725 | 1.37 | 0.0E+00 | AL137764.1 | NT | Novel human gene mapping to chomosome 1 |
| 1495 | 14648 | 27730 | 1.73 | 0.0E+00 | D87077.1 | NT | Human mRNA for KIAA0240 gene, partial cds |
| 1498 | 14651 | 27733 | 8.24 | 0.0E+00 | 6912457 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 1500 | 14653 | 27735 | 2.28 | 0.0E+00 | 7661965 | NT | Homo sapiens KIAA0170 gene product (KIAA0170), mRNA |
| 1500 | 14653 | 27736 | 2.28 | 0.0E+00 | 7661965 | NT | Homo sapiens KIAA0170 gene product (KIAA0170), mRNA |
| 1501 | 14654 |  | 3.74 | 0.0E+00 | Y07829.2 | NT | Homo sapiens RFB30 gene for RING finger protein |
| 1507 | 14660 | 27742 | 6.62 | 0.0E+00 | M60676.1 | NT | Human von Willebrand factor pseudogene corresponding to exons 23 through 34 |
| 1507 | 14660 | 27743 | 6.62 | 0.0E+00 | M60676.1 | NT | Human von Willebrand factor pseudogene corresponding to exons 23 through 34 |
| 1541 | 14693 | 27772 | 2.61 | 0.0E+00 | 7706434 | NT | Homo sapiens hHDC for homolog of Drosophila headcase (LOC51696), mRNA |
| 1555 | 14708 | 27788 | 2.66 | 0.0E+00 | AA481172.1 | EST_HUMAN | aa34a03.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:815116 5' |
| 1562 | 14715 | 27792 | 27.8 | 0.0E+00 | AF023860.1 | NT | Cercopithecus aethiops cyclophilin A mRNA, complete cds |
| 1562 | 14715 | 27793 | 27.8 | 0.0E+00 | AF023860.1 | NT | Cercopithecus aethiops cyclophilin A mRNA, complete cds |
| 1564 | 14717 | 27796 | 1.55 | 0.0E+00 | AW976097.1 | EST_HUMAN | EST388206 MAGE resequences, MAGN Homo sapiens cDNA |
| 1564 | 14717 | 27797 | 1.55 | 0.0E+00 | AW976097.1 | EST_HUMAN | EST388206 MAGE resequences, MAGN Homo sapiens cDNA |
| 1565 | 14718 | 27798 | 1.03 | 0.0E+00 | D10884.1 | NT | Bovine mRNA for neurocalcin |
| 1567 | 14720 |  | 3.2 | 0.0E+00 | U78027.1 | NT | Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds |
| 1568 | 14721 | 27801 | 26.69 | 0.0E+00 | 4505404 | NT | Homo sapiens transmembrane glycoprotein (GPNMB) mRNA |
| 1568 | 14721 | 27802 | 26.69 | 0.0E+00 | 4505404 | NT | Homo sapiens transmembrane glycoprotein (GPNMB) mRNA |
| 1570 | 14723 | 27804 | 3.85 | 0.0E+00 | 7662405 | NT | Homo sapiens KIAA0957 protein (KIAA0957), mRNA |
| 1571 | 14724 |  | 9.78 | 0.0E+00 | 7656972 | NT | Homo sapiens TNF-inducible protein CG12-1 (CG12-1), mRNA |
| 1576 | 14729 | 27810 | 64.77 | 0.0E+00 | M98478.1 | NT | Human transglutaminase mRNA, complete cds |
| 1578 | 14731 | 27811 | 0.97 | 0.0E+00 | 4507720 | NT | Homo sapiens titin (TTN) mRNA |
| 1578 | 14731 | 27812 | 0.97 | 0.0E+00 | 4507720 | NT | Homo sapiens titin (TTN) mRNA |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1579 | 16042 | | 32.23 | 0.0E+00 | 4506654 | NT | Homo sapiens ribosomal protein L5 (RPL5) mRNA |
| 1580 | 14732 | 27813 | 27.68 | 0.0E+00 | M14199.1 | NT | Human laminin receptor (2H5 epitope) mRNA, 5' end |
| 1592 | 14745 | 27828 | 1.43 | 0.0E+00 | 4507720 | NT | Homo sapiens titin (TTN) mRNA |
| 1592 | 14745 | 27829 | 1.43 | 0.0E+00 | 4507720 | NT | Homo sapiens titin (TTN) mRNA |
| 1594 | 14747 | 27830 | 13.85 | 0.0E+00 | 4503098 | NT | Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA |
| 1602 | 14755 | | 3.25 | 0.0E+00 | D00333.1 | NT | human c-yes-2 gene |
| 1611 | 14764 | 27844 | 11.38 | 0.0E+00 | Z83738.1 | NT | H.sapiens hH2B/e gene |
| 1612 | 14765 | 27845 | 2.56 | 0.0E+00 | 5921460 | NT | Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA |
| 1612 | 14765 | 27846 | 2.55 | 0.0E+00 | 5921460 | NT | Homo sapiens butyrophilin, subfamily 2, member A1 (BTN2A1), mRNA |
| 1613 | 14766 | 27847 | 11.09 | 0.0E+00 | AV690831.1 | EST_HUMAN | AV690831 GKC Homo sapiens cDNA clone GKCBOF02 5' |
| 1613 | 14766 | 27848 | 11.09 | 0.0E+00 | AV690831.1 | EST_HUMAN | AV690831 GKC Homo sapiens cDNA clone GKCBOF02 5' |
| 1616 | 16043 | 27851 | 2.1 | 0.0E+00 | AB040905.1 | NT | Homo sapiens mRNA for KIAA1472 protein, partial cds |
| 1618 | 14770 | 27852 | 1.88 | 0.0E+00 | AF167476.1 | NT | Homo sapiens DNA polymerase zeta catalytic subunit (REV3) mRNA, complete cds |
| 1620 | 14772 | 27855 | 6.83 | 0.0E+00 | 7662183 | NT | Homo sapiens KIAA0569 gene product (KIAA0569), mRNA |
| 1620 | 14772 | 27856 | 6.83 | 0.0E+00 | 7662183 | NT | Homo sapiens KIAA0569 gene product (KIAA0569), mRNA |
| 1622 | 14774 | 27857 | 56.88 | 0.0E+00 | 5729876 | NT | Homo sapiens heat shock 70kD protein 10 (HSC71) (HSPA10), mRNA |
| 1622 | 14774 | 27858 | 56.88 | 0.0E+00 | 5729876 | NT | Homo sapiens heat shock 70kD protein 10 (HSC71) (HSPA10), mRNA |
| 1624 | 14776 | 27860 | 1.53 | 0.0E+00 | M91803.1 | NT | Human sodium channel mRNA |
| 1639 | 14791 | 27876 | 6.29 | 0.0E+00 | H26973.1 | EST_HUMAN | yo76c05.s1 Soares adult brain N2b4HB55Y Homo sapiens cDNA clone IMAGE:183848 3' |
| 1648 | 14801 | 27887 | 1.87 | 0.0E+00 | AB046829.1 | NT | Homo sapiens mRNA for KIAA1609 protein, partial cds |
| 1648 | 14801 | 27888 | 1.87 | 0.0E+00 | AB046829.1 | NT | Homo sapiens mRNA for KIAA1609 protein, partial cds |
| 1668 | 14820 | 27903 | 1.66 | 0.0E+00 | AW444637.1 | EST_HUMAN | UI-H-BI3-ajw-c-04-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2733294 3' |
| 1698 | 14850 | 27936 | 2.12 | 0.0E+00 | BE144364.1 | EST_HUMAN | MR0-HT0166-191199-004-b11 HT0166 Homo sapiens cDNA |
| 1698 | 14850 | 27937 | 2.12 | 0.0E+00 | BE144364.1 | EST_HUMAN | MR0-HT0166-191199-004-b11 HT0166 Homo sapiens cDNA |
| 1702 | 14854 | 27941 | 1.3 | 0.0E+00 | AI768104.1 | EST_HUMAN | wg81b07.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2371477 3' similar to TR:Q62788 Q62788 CYS2/HIS2 ZINC FINGER PROTEIN. ; |
| 1703 | 14855 | 27942 | 1.71 | 0.0E+00 | 4758513 | NT | Homo sapiens hematopoietic-derived zinc finger protein (HD-ZNF1) mRNA |
| 1704 | 14856 | 27943 | 2.8 | 0.0E+00 | AF057177.1 | NT | Homo sapiens T-cell receptor gamma V1 gene region |
| 1708 | 14859 | 27947 | 2.1 | 0.0E+00 | M29580.1 | NT | Human zinc-finger protein 7 (ZFP7) mRNA, complete cds |
| 1708 | 14859 | 27948 | 2.1 | 0.0E+00 | M29580.1 | NT | Human zinc-finger protein 7 (ZFP7) mRNA, complete cds |
| 1710 | 14861 | 27950 | 64.4 | 0.0E+00 | 4557887 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 1711 | 14862 | 27951 | 2.42 | 0.0E+00 | 7657065 | NT | Homo sapiens v-ets avian erythroblastosis virus E26 oncogene related (ERG), mRNA |
| 1714 | 14865 | 27954 | 1.08 | 0.0E+00 | BE222374.1 | EST_HUMAN | hu11d05.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3166281 3' similar to TR:O95147 O95147 MKP-1 LIKE PROTEIN TYROSINE PHOSPHATASE ; |

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1714 | 14865 | 27955 | 1.08 | 0.0E+00 | BE222374.1 | EST_HUMAN | hu11d05.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3166281 3' similar to TR:O95147 O95147 MKP-1 LIKE PROTEIN TYROSINE PHOSPHATASE ; |
| 1716 | 14866 | 27957 | 3.2 | 0.0E+00 | 4557610 | NT | Homo sapiens gamma-aminobutyric acid (GABA) A receptor, gamma 2 (GABRG2) mRNA |
| 1719 | 14869 | 27960 | 4.3 | 0.0E+00 | H30132.1 | EST_HUMAN | yo59e08.r1 Soares breast 3NbHBst Homo sapiens cDNA clone IMAGE:182246 5' similar to gb:M64099 GAMMA-GLUTAMYLTRANSPEPTIDASE 5 PRECURSOR (HUMAN); |
| 1719 | 14869 | 27961 | 4.3 | 0.0E+00 | H30132.1 | EST_HUMAN | yo59e08.r1 Soares breast 3NbHBst Homo sapiens cDNA clone IMAGE:182246 5' similar to gb:M64099 GAMMA-GLUTAMYLTRANSPEPTIDASE 5 PRECURSOR (HUMAN); |
| 1721 | 14871 |  | 0.97 | 0.0E+00 | AI149880.1 | EST_HUMAN | qf43f09.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1752809 3' |
| 1722 | 14872 | 27963 | 10.28 | 0.0E+00 | Z80780.1 | NT | H.sapiens H2B/h gene |
| 1722 | 14872 | 27964 | 10.28 | 0.0E+00 | Z80780.1 | NT | H.sapiens H2B/h gene |
| 1725 | 14875 |  | 21.3 | 0.0E+00 | 5031748 | NT | Homo sapiens high-mobility group (nonhistone chromosomal) protein 17 (HMG17), mRNA |
| 1734 | 14883 | 27976 | 6.13 | 0.0E+00 | 8923841 | NT | Homo sapiens FOXJ2 forkhead factor (LOC55810), mRNA |
| 1737 | 14886 | 27979 | 1.63 | 0.0E+00 | 5453855 | NT | Homo sapiens pericentriolar material 1 (PCM1) mRNA |
| 1741 | 14890 | 27983 | 1.95 | 0.0E+00 | M75980.1 | NT | Human hepatocyte growth factor gene, exon 15 |
| 1741 | 14890 | 27984 | 1.95 | 0.0E+00 | M75980.1 | NT | Human hepatocyte growth factor gene, exon 15 |
| 1744 | 14893 | 27988 | 1.11 | 0.0E+00 | 4826973 | NT | Homo sapiens RNA binding motif protein, Y chromosome, family 1, member A1 (RBMY1A1) mRNA |
| 1747 | 14896 | 27990 | 2.54 | 0.0E+00 | M75980.1 | NT | Human hepatocyte growth factor gene, exon 15 |
| 1747 | 14896 | 27991 | 2.54 | 0.0E+00 | M75980.1 | NT | Human hepatocyte growth factor gene, exon 15 |
| 1751 | 14900 | 27997 | 6.57 | 0.0E+00 | AB026542.1 | NT | Homo sapiens WAVE2 mRNA for WASP-family protein, complete cds |
| 1753 | 14902 |  | 2.64 | 0.0E+00 | S94400.1 | NT | TCR zeta [human, Genomic/mRNA, 365 nt, segment 1 of 8] |
| 1762 | 14911 | 28006 | 5.29 | 0.0E+00 | 4557538 | NT | Homo sapiens solute carrier family 26 (sulfate transporter), member 2 (SLC26A2) mRNA |
| 1784 | 14933 | 28027 | 3.33 | 0.0E+00 | AF273841.1 | NT | Homo sapiens SMCY (SMCY) gene, complete cds |
| 1826 | 16047 |  | 41.96 | 0.0E+00 | 4506718 | NT | Homo sapiens ribosomal protein S2 (RPS2) mRNA |
| 1830 | 14978 | 28073 | 3.2 | 0.0E+00 | 4557556 | NT | Homo sapiens E1A binding protein p300 (EP300) mRNA |
| 1830 | 14978 | 28074 | 3.2 | 0.0E+00 | 4557556 | NT | Homo sapiens E1A binding protein p300 (EP300) mRNA |
| 1833 | 14980 | 28078 | 2.47 | 0.0E+00 | U63963.1 | NT | Human CSF-1 receptor (FMS) gene, complete cds, and (SMF) gene, partial cds |
| 1837 | 16048 | 28083 | 7.65 | 0.0E+00 | 4505332 | NT | Homo sapiens nuclear autoantigenic sperm protein (histone-binding) (NASP) mRNA |
| 1839 | 14985 | 28085 | 1.7 | 0.0E+00 | AA113030.1 | EST_HUMAN | zn65c09.s1 Stratagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:563056 3' |
| 1850 | 14996 | 28099 | 24.06 | 0.0E+00 | U14967.1 | NT | Human ribosomal protein L21 mRNA, complete cds |
| 1852 | 14998 | 28102 | 9 | 0.0E+00 | AB002331.1 | NT | Human mRNA for KIAA0333 gene, partial cds |
| 1853 | 14999 | 28103 | 24.99 | 0.0E+00 | 4502264 | NT | Homo sapiens activating transcription factor 4 (tax-responsive enhancer element B67) (ATF4) mRNA |
| 1853 | 14999 | 28104 | 24.99 | 0.0E+00 | 4502264 | NT | Homo sapiens activating transcription factor 4 (tax-responsive enhancer element B67) (ATF4) mRNA |

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 1853 | 14999 | 28105 | 24.99 | 0.0E+00 | 4502264 | NT | Homo sapiens activating transcription factor 4 (tax-responsive enhancer element B67) (ATF4) mRNA |
| 1870 | 15015 | 28124 | 3.11 | 0.0E+00 | 4504626 | NT | Homo sapiens immunoglobin superfamily, member 3 (IGSF3) mRNA, and translated products |
| 1870 | 15015 | 28125 | 3.11 | 0.0E+00 | 4504626 | NT | Homo sapiens immunoglobin superfamily, member 3 (IGSF3) mRNA, and translated products |
| 1881 | 15025 | 28131 | 7.19 | 0.0E+00 | 6005855 | NT | Homo sapiens Retina-derived POU-domain factor-1 (RPF-1), mRNA |
| 1881 | 15025 | 28132 | 7.19 | 0.0E+00 | 6005855 | NT | Homo sapiens Retina-derived POU-domain factor-1 (RPF-1), mRNA |
| 1892 | 15036 | 28143 | 1.84 | 0.0E+00 | AB032978.1 | NT | Homo sapiens mRNA for KIAA1152 protein, partial cds |
| 1892 | 15036 | 28144 | 1.84 | 0.0E+00 | AB032978.1 | NT | Homo sapiens mRNA for KIAA1152 protein, partial cds |
| 1895 | 15038 | 28146 | 3.59 | 0.0E+00 | 4826783 | NT | Homo sapiens potassium voltage-gated channel, Shab-related subfamily, member 1 (KCNB1) mRNA |
| 1895 | 15038 | 28147 | 3.59 | 0.0E+00 | 4826783 | NT | Homo sapiens potassium voltage-gated channel, Shab-related subfamily, member 1 (KCNB1) mRNA |
| 1896 | 15039 | 28148 | 7.35 | 0.0E+00 | U07147.1 | NT | Human retinal degeneration slow (RDS) gene, exon 1 |
| 1896 | 15039 | 28149 | 7.35 | 0.0E+00 | U07147.1 | NT | Human retinal degeneration slow (RDS) gene, exon 1 |
| 1899 | 15042 | 28152 | 2.3 | 0.0E+00 | AW207280.1 | EST_HUMAN | UI-H-BI1-afn-f-07-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2722333 3' |
| 1899 | 15042 | 28153 | 2.3 | 0.0E+00 | AW207280.1 | EST_HUMAN | UI-H-BI1-afn-f-07-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2722333 3' |
| 1924 | 15067 | 28171 | 3.22 | 0.0E+00 | BE277465.1 | EST_HUMAN | 601179164F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3547239 5' |
| 1924 | 15067 | 28172 | 3.22 | 0.0E+00 | BE277465.1 | EST_HUMAN | 601179164F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3547239 5' |
| 1943 | 15086 | 28187 | 1.04 | 0.0E+00 | BE006292.1 | EST_HUMAN | RC2-BN0126-200300-012-b04 BN0126 Homo sapiens cDNA |
| 1972 | 15115 | 28215 | 1.62 | 0.0E+00 | 7657390 | NT | Homo sapiens nuclear protein (NP220), mRNA |
| 1972 | 15115 | 28216 | 1.62 | 0.0E+00 | 7657390 | NT | Homo sapiens nuclear protein (NP220), mRNA |
| 1975 | 15118 | 28218 | 3.14 | 0.0E+00 | 4506384 | NT | Homo sapiens RAD1 (S. pombe) homolog (RAD1) mRNA, and translated products |
| 1975 | 15118 | 28219 | 3.14 | 0.0E+00 | 4506384 | NT | Homo sapiens RAD1 (S. pombe) homolog (RAD1) mRNA, and translated products |
| 1981 | 15124 | 28226 | 1.29 | 0.0E+00 | AB037788.1 | NT | Homo sapiens mRNA for KIAA1367 protein, partial cds |
| 1985 | 15128 |  | 1.64 | 0.0E+00 | AF167476.1 | NT | Homo sapiens DNA polymerase zeta catalytic subunit (REV3) mRNA, complete cds |
| 1986 | 16051 | 28230 | 57.92 | 0.0E+00 | M98478.1 | NT | Human transglutaminase mRNA, complete cds |
| 1986 | 16051 | 28231 | 57.92 | 0.0E+00 | M98478.1 | NT | Human transglutaminase mRNA, complete cds |
| 1991 | 15133 | 28238 | 3.19 | 0.0E+00 | 4507464 | NT | Homo sapiens transforming growth factor, beta 3 (TGFB3), mRNA |
| 1991 | 15133 | 28239 | 3.19 | 0.0E+00 | 4507464 | NT | Homo sapiens transforming growth factor, beta 3 (TGFB3), mRNA |
| 1994 | 15135 | 28241 | 2.41 | 0.0E+00 | 7657038 | NT | Homo sapiens death receptor 6 (DR6), mRNA |
| 1996 | 15137 |  | 6.39 | 0.0E+00 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 2001 | 16142 |  | 5.28 | 0.0E+00 | M55632.1 | NT | Human topoisomerase I pseudogene 1 |
| 2003 | 16052 | 28248 | 1.84 | 0.0E+00 | 5901805 | NT | Homo sapiens butyrophilin, subfamily 3, member A2 (BTN3A2), mRNA |

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Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2005 | 15145 | 28250 | 1.3 | 0.0E+00 | BE018066.1 | EST_HUMAN | bb73f11.y1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3048045 5' |
| 2011 | 15151 | 28255 | 1.69 | 0.0E+00 | 4809282 | NT | Homo sapiens histidine ammonia-lyase (HAL) mRNA |
| 2011 | 15151 | 28256 | 1.69 | 0.0E+00 | 4809282 | NT | Homo sapiens histidine ammonia-lyase (HAL) mRNA |
| 2024 | 15165 |  | 1.04 | 0.0E+00 | AL163252.2 | NT | Homo sapiens chromosome 21 segment HS21C052 |
| 2026 | 15167 | 28272 | 1.41 | 0.0E+00 | 8400716 | NT | Homo sapiens nebulin (NEB), mRNA |
| 2026 | 15167 | 28273 | 1.41 | 0.0E+00 | 8400716 | NT | Homo sapiens nebulin (NEB), mRNA |
| 2027 | 15168 | 28274 | 12.98 | 0.0E+00 | 4826638 | NT | Homo sapiens actinin, alpha 4 (ACTN4) mRNA |
| 2027 | 15168 | 28275 | 12.98 | 0.0E+00 | 4826638 | NT | Homo sapiens actinin, alpha 4 (ACTN4) mRNA |
| 2037 | 15178 | 28288 | 2.11 | 0.0E+00 | AB018333.1 | NT | Homo sapiens mRNA for KIAA0790 protein, partial cds |
| 2037 | 15178 | 28289 | 2.11 | 0.0E+00 | AB018333.1 | NT | Homo sapiens mRNA for KIAA0790 protein, partial cds |
| 2043 | 15184 | 28293 | 1.93 | 0.0E+00 | M33782.1 | NT | Human TFEB protein mRNA, partial cds |
| 2043 | 15184 | 28294 | 1.93 | 0.0E+00 | M33782.1 | NT | Human TFEB protein mRNA, partial cds |
| 2045 | 15186 | 28295 | 3.24 | 0.0E+00 | AW193024.1 | EST_HUMAN | xl69b01.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2679913 3' |
| 2045 | 15186 | 28296 | 3.24 | 0.0E+00 | AW193024.1 | EST_HUMAN | xl69b01.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2679913 3' |
| 2046 | 15187 | 28297 | 9.68 | 0.0E+00 | 6912457 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 2046 | 15187 | 28298 | 9.68 | 0.0E+00 | 6912457 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 2048 | 15189 | 28300 | 1.53 | 0.0E+00 | AB011149.1 | NT | Homo sapiens mRNA for KIAA0577 protein, complete cds |
| 2049 | 15190 | 28301 | 1.09 | 0.0E+00 | Z47556.1 | NT | H.sapiens genes for semenogelin I and semenogelin II |
| 2049 | 15190 | 28302 | 1.09 | 0.0E+00 | Z47556.1 | NT | H.sapiens genes for semenogelin I and semenogelin II |
| 2056 | 15197 | 28311 | 5.04 | 0.0E+00 | AB040946.1 | NT | Homo sapiens mRNA for KIAA1513 protein, partial cds |
| 2078 | 15218 | 28337 | 1.85 | 0.0E+00 | AF273841.1 | NT | Homo sapiens SMCY (SMCY) gene, complete cds |
| 2078 | 15218 | 28338 | 1.85 | 0.0E+00 | AF273841.1 | NT | Homo sapiens SMCY (SMCY) gene, complete cds |
| 2109 | 15247 | 28368 | 1.53 | 0.0E+00 | 8394546 | NT | Homo sapiens chromosome 21 open reading frame 7 (YG81), mRNA |
| 2112 | 15250 | 28370 | 0.98 | 0.0E+00 | 7706742 | NT | Homo sapiens TP53TG3a (TP53TG3a), mRNA |
| 2117 | 15255 | 28374 | 35.36 | 0.0E+00 | BE743215.1 | EST_HUMAN | 601573895F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3835198 5' |
| 2117 | 15255 | 28375 | 35.36 | 0.0E+00 | BE743215.1 | EST_HUMAN | 601573895F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3835198 5' |
| 2119 | 15257 | 28376 | 1.02 | 0.0E+00 | 4503648 | NT | Homo sapiens coagulation factor IX (plasma thromboplastic component, Christmas disease, hemophilia B) (F9) mRNA |
| 2121 | 15258 | 28378 | 67.93 | 0.0E+00 | AU140831.1 | EST_HUMAN | AU140831 PLACE4 Homo sapiens cDNA clone PLACE4000321 5' |
| 2122 | 14612 | 27694 | 0.97 | 0.0E+00 | 7705565 | NT | Homo sapiens KIAA1114 protein (KIAA1114), mRNA |
| 2122 | 14612 | 27695 | 0.97 | 0.0E+00 | 7705565 | NT | Homo sapiens KIAA1114 protein (KIAA1114), mRNA |
| 2124 | 15260 | 28380 | 2.59 | 0.0E+00 | AA077589.1 | EST_HUMAN | 7B22E10 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B22E10 |
| 2124 | 15260 | 28381 | 2.59 | 0.0E+00 | AA077589.1 | EST_HUMAN | 7B22E10 Chromosome 7 Fetal Brain cDNA Library Homo sapiens cDNA clone 7B22E10 |
| 2126 | 15262 |  | 3.79 | 0.0E+00 | 7657468 | NT | Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2128 | 15264 |  | 1.48 | 0.0E+00 | 4585863 | NT | Homo sapiens phosphodiesterase 6A, cGMP-specific, rod, alpha (PDE6A), mRNA |
| 2129 | 15265 | 28384 | 2.9 | 0.0E+00 | Z42399.1 | EST_HUMAN | HSC0IC021 normalized infant brain cDNA Homo sapiens cDNA clone c-0ic02 |
| 2131 | 15267 |  | 2.38 | 0.0E+00 | AI244247.1 | EST_HUMAN | qv90f08.x1 NCI_CGAP_Ut2 Homo sapiens cDNA clone IMAGE:1988871 3' similar to contains Alu repetitive element; |
| 2136 | 15272 | 28393 | 4.37 | 0.0E+00 | BE877225.1 | EST_HUMAN | 601485146F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3887747 5' |
| 2138 | 15274 | 28395 | 2.25 | 0.0E+00 | BF315325.1 | EST_HUMAN | 601902604F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4135320 5' |
| 2138 | 15274 | 28396 | 2.25 | 0.0E+00 | BF315325.1 | EST_HUMAN | 601902604F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4135320 5' |
| 2144 | 15280 | 28404 | 3.6 | 0.0E+00 | BE697125.1 | EST_HUMAN | RC3-CT0413-270700-022-d10 CT0413 Homo sapiens cDNA |
| 2144 | 15280 | 28405 | 3.6 | 0.0E+00 | BE697125.1 | EST_HUMAN | RC3-CT0413-270700-022-d10 CT0413 Homo sapiens cDNA |
| 2152 | 15288 | 28414 | 3.43 | 0.0E+00 | L00620.1 | NT | Human plasma membrane calcium ATPase isoform 2 (APT2B2) mRNA, comlete cds |
| 2152 | 15288 | 28415 | 3.43 | 0.0E+00 | L00620.1 | NT | Human plasma membrane calcium ATPase isoform 2 (APT2B2) mRNA, comlete cds |
| 2153 | 15289 | 28416 | 1.11 | 0.0E+00 | AJ297709.1 | NT | Homo sapiens mRNA for CDC2L5 protein kinase, (CDC2L5 gene), isoform 1 |
| 2158 | 15294 | 28420 | 1.16 | 0.0E+00 | 4758489 | NT | Homo sapiens GTP binding protein 1 (GTPBP1) mRNA |
| 2162 | 15298 | 28423 | 1.94 | 0.0E+00 | BE500995.1 | EST_HUMAN | 7a34c02.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:3220610 3' similar to SW:DTD_HUMAN P50443 SULFATE TRANSPORTER ; |
| 2182 | 15317 |  | 3.17 | 0.0E+00 | BE767964.1 | EST_HUMAN | QV1-GN0065-140800-318-c10 GN0065 Homo sapiens cDNA |
| 2183 | 15318 |  | 1.26 | 0.0E+00 | AF018963.1 | NT | Homo sapiens X-linked juvenile retinoschisis protein (XLRS1) gene, exon 6 and complete cds |
| 2185 | 15320 | 28446 | 4.64 | 0.0E+00 | BF027562.1 | EST_HUMAN | 601672066F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3954785 5' |
| 2186 | 15321 | 28447 | 1.5 | 0.0E+00 | BE072624.1 | EST_HUMAN | PM0-BT0547-210300-004-F04 BT0547 Homo sapiens cDNA |
| 2188 | 15323 | 28448 | 1.29 | 0.0E+00 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 2190 | 15325 | 28450 | 3.41 | 0.0E+00 | AW752708.1 | EST_HUMAN | IL3-CT0219-271099-022-G10 CT0219 Homo sapiens cDNA |
| 2192 | 15327 | 28452 | 6.48 | 0.0E+00 | AI904640.1 | EST_HUMAN | QV-BT065-020399-092 BT065 Homo sapiens cDNA |
| 2192 | 15327 | 28453 | 6.48 | 0.0E+00 | AI904640.1 | EST_HUMAN | QV-BT065-020399-092 BT065 Homo sapiens cDNA |
| 2225 | 15359 |  | 1.08 | 0.0E+00 | 7657252 | NT | Homo sapiens potassium large conductance calcium-activated channel, subfamily M, beta member 3-like (KCNMB3L), mRNA |
| 2249 | 15382 |  | 1.52 | 0.0E+00 | L14787.1 | NT | Human DNA-binding protein mRNA, 3'end |
| 2259 | 15392 | 28518 | 1.26 | 0.0E+00 | BE274696.1 | EST_HUMAN | 601122338F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3346688 5' |
| 2261 | 15394 | 28521 | 0.94 | 0.0E+00 | D87685.1 | NT | Human mRNA for KIAA0244 gene, partial cds |
| 2262 | 15395 | 28522 | 23.12 | 0.0E+00 | AV738288.1 | EST_HUMAN | AV738288 CB Homo sapiens cDNA clone CBNBDE08 5' |
| 2262 | 15395 | 28523 | 23.12 | 0.0E+00 | AV738288.1 | EST_HUMAN | AV738288 CB Homo sapiens cDNA clone CBNBDE08 5' |
| 2264 | 15397 | 28525 | 2.57 | 0.0E+00 | AA931591.1 | EST_HUMAN | oc32e01.s1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1567896 3' |
| 2268 | 15401 | 28529 | 24.38 | 0.0E+00 | BF344434.1 | EST_HUMAN | 602014829F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4150734 5' |
| 2269 | 15402 | 28530 | 40.14 | 0.0E+00 | BE748899.1 | EST_HUMAN | 601572186T1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:3839012 3' |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2272 | 15405 | 28533 | 5.56 | 0.0E+00 | BF377897.1 | EST_HUMAN | CM1-TN0141-250900-439-b08 TN0141 Homo sapiens cDNA |
| 2272 | 15405 | 28534 | 5.56 | 0.0E+00 | BF377897.1 | EST_HUMAN | CM1-TN0141-250900-439-b08 TN0141 Homo sapiens cDNA |
| 2276 | 16059 | 28539 | 4.06 | 0.0E+00 | BF313617.1 | EST_HUMAN | 601900261F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4129622 5' |
| 2279 | 15411 | 28542 | 3.13 | 0.0E+00 | BE018750.1 | EST_HUMAN | bb84e02.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3049082 5' similar to TR:Q15170 Q15170 TRANSCRIPTION FACTOR S-II-RELATED PROTEIN ; |
| 2281 | 15413 | 28544 | 1.68 | 0.0E+00 | AA042813.1 | EST_HUMAN | zk53c07.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:486540 3' similar to gb:X65857_cds1 OLFACTORY RECEPTOR-LIKE PROTEIN HGMP07E (HUMAN); |
| 2281 | 15413 | 28545 | 1.68 | 0.0E+00 | AA042813.1 | EST_HUMAN | zk53c07.s1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:486540 3' similar to gb:X65857_cds1 OLFACTORY RECEPTOR-LIKE PROTEIN HGMP07E (HUMAN); |
| 2289 | 15421 | 28553 | 3.06 | 0.0E+00 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 2289 | 15421 | 28554 | 3.06 | 0.0E+00 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 2290 | 15422 | 28555 | 3.72 | 0.0E+00 | 7662401 | NT | Homo sapiens KIAA0952 protein (KIAA0952), mRNA |
| 2290 | 15422 | 28556 | 3.72 | 0.0E+00 | 7662401 | NT | Homo sapiens KIAA0952 protein (KIAA0952), mRNA |
| 2295 | 15427 |  | 2.34 | 0.0E+00 | U36264.1 | NT | Human beta-prime-adaptin (BAM22) gene, exon 16 |
| 2296 | 15428 | 28561 | 1.02 | 0.0E+00 | AA282281.1 | EST_HUMAN | zt12b10.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:712891 5' |
| 2313 | 15445 | 28579 | 7.92 | 0.0E+00 | 4557556 | NT | Homo sapiens E1A binding protein p300 (EP300) mRNA |
| 2320 | 15452 | 28584 | 2.63 | 0.0E+00 | 7662401 | NT | Homo sapiens KIAA0952 protein (KIAA0952), mRNA |
| 2327 | 15459 | 28592 | 3.44 | 0.0E+00 | BE895281.1 | EST_HUMAN | 601433525F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918607 5' |
| 2331 | 15463 | 28596 | 1.51 | 0.0E+00 | BE905563.1 | EST_HUMAN | 601495208F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3897457 5' |
| 2331 | 15463 | 28597 | 1.51 | 0.0E+00 | BE905563.1 | EST_HUMAN | 601495208F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3897457 5' |
| 2333 | 15464 | 28599 | 1.83 | 0.0E+00 | AB037784.1 | NT | Homo sapiens mRNA for KIAA1363 protein, partial cds |
| 2375 | 15506 | 28632 | 4.35 | 0.0E+00 | 11545748 | NT | Homo sapiens differentially expressed in FDCP (mouse homolog) 6 (DEF6), mRNA |
| 2375 | 15506 | 28633 | 4.35 | 0.0E+00 | 11545748 | NT | Homo sapiens differentially expressed in FDCP (mouse homolog) 6 (DEF6), mRNA |
| 2376 | 15507 | 28634 | 2.67 | 0.0E+00 | AI076404.1 | EST_HUMAN | oz09c07.x1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:1674828 3' |
| 2378 | 15509 | 28636 | 2.95 | 0.0E+00 | AA429001.1 | EST_HUMAN | zv78a11.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:759740 5' |
| 2378 | 15509 | 28637 | 2.95 | 0.0E+00 | AA429001.1 | EST_HUMAN | zv78a11.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:759740 5' |
| 2380 | 15511 | 28639 | 1.82 | 0.0E+00 | BF347039.1 | EST_HUMAN | 602021846F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4157339 5' |
| 2385 | 15516 | 28645 | 1.33 | 0.0E+00 | AB020717.1 | NT | Homo sapiens mRNA for KIAA0910 protein, partial cds |
| 2385 | 15516 | 28646 | 1.33 | 0.0E+00 | AB020717.1 | NT | Homo sapiens mRNA for KIAA0910 protein, partial cds |
| 2386 | 15517 | 28647 | 2.34 | 0.0E+00 | 6325466 | NT | Homo sapiens flavin containing monooxygenase 3 (FMO3), mRNA |
| 2393 | 15524 | 28653 | 2.36 | 0.0E+00 | BE676095.1 | EST_HUMAN | 7f22a02.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:3295370 3' similar to TR:O94939 O94939 KIAA0857 PROTEIN ; |
| 2396 | 15527 | 28655 | 5.46 | 0.0E+00 | AF044571.1 | NT | Homo sapiens phosphorylase kinase alpha subunit (PHKA2) gene, exon 32 |
| 2397 | 15528 | 28656 | 2.6 | 0.0E+00 | AI625542.1 | EST_HUMAN | ty57c08.x1 NCI_CGAP_Ut2 Homo sapiens cDNA clone IMAGE:2283182 3' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2399 | 15530 | 28657 | 1.5 | 0.0E+00 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 2402 | 15533 | 28659 | 2.22 | 0.0E+00 | 7662401 | NT | Homo sapiens KIAA0952 protein (KIAA0952), mRNA |
| 2402 | 15533 | 28660 | 2.22 | 0.0E+00 | 7662401 | NT | Homo sapiens KIAA0952 protein (KIAA0952), mRNA |
| 2405 | 15536 | 28663 | 3.83 | 0.0E+00 | 5803178 | NT | Homo sapiens sperm specific antigen 2 (SSFA2), mRNA |
| 2405 | 15536 | 28664 | 3.83 | 0.0E+00 | 5803178 | NT | Homo sapiens sperm specific antigen 2 (SSFA2), mRNA |
| 2424 | 15553 | 28679 | 3.04 | 0.0E+00 | 5174678 | NT | Homo sapiens signal regulatory protein, beta, 1 (SIRP-BETA-1) mRNA |
| 2428 | 15556 | 28683 | 3.56 | 0.0E+00 | AU131142.1 | EST_HUMAN | AU131142 NT2RP3 Homo sapiens cDNA clone NT2RP3002064 5' |
| 2429 | 15557 | | 9.82 | 0.0E+00 | BE794026.1 | EST_HUMAN | 601586843F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3941003 5' |
| 2430 | 15558 | 28684 | 3.96 | 0.0E+00 | 7662017 | NT | Homo sapiens KIAA0244 protein (KIAA0244), mRNA |
| 2431 | 15559 | 28685 | 1.39 | 0.0E+00 | 4758497 | NT | Homo sapiens hexose-6-phosphate dehydrogenase (glucose 1-dehydrogenase) (H6PD), mRNA |
| 2431 | 15559 | 28686 | 1.39 | 0.0E+00 | 4758497 | NT | Homo sapiens hexose-6-phosphate dehydrogenase (glucose 1-dehydrogenase) (H6PD), mRNA |
| 2432 | 15560 | | 7.14 | 0.0E+00 | AF280107.1 | NT | Homo sapiens cytochrome P450 polypeptide 43 (CYP3A43) gene, partial cds; cytochrome P450 polypeptide 4 (CYP3A4) and cytochrome P450 polypeptide 7 (CYP3A7) genes, complete cds; and cytochrome P450 polypeptide 5 (CYP3A5) gene, partial cds |
| 2434 | 15562 | 28688 | 10.61 | 0.0E+00 | AU118082.1 | EST_HUMAN | AU118082 HEMBA1 Homo sapiens cDNA clone HEMBA1002839 5' |
| 2434 | 15562 | 28689 | 10.61 | 0.0E+00 | AU118082.1 | EST_HUMAN | AU118082 HEMBA1 Homo sapiens cDNA clone HEMBA1002839 5' |
| 2434 | 15562 | 28690 | 10.61 | 0.0E+00 | AU118082.1 | EST_HUMAN | AU118082 HEMBA1 Homo sapiens cDNA clone HEMBA1002839 5' |
| 2452 | 15580 | | 1.03 | 0.0E+00 | BE814424.1 | EST_HUMAN | MR0-BN0070-090600-029-d12 BN0070 Homo sapiens cDNA |
| 2485 | 15612 | 28735 | 1.14 | 0.0E+00 | AU119582.1 | EST_HUMAN | AU119582 HEMBA1 Homo sapiens cDNA clone HEMBA1006155 5' |
| 2487 | 15614 | | 4.63 | 0.0E+00 | AI042035.1 | EST_HUMAN | ox80b02.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:1660683 3' similar to TR:O08662 O08662 230KDA PHOSPHATIDYLINOSITOL 4-KINASE. ; |
| 2489 | 15616 | 28737 | 0.94 | 0.0E+00 | 8923620 | NT | Homo sapiens hypothetical protein FLJ20693 (FLJ20693), mRNA |
| 2492 | 15619 | | 1.35 | 0.0E+00 | BE895605.1 | EST_HUMAN | 601432608F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3918168 5' |
| 2503 | 15630 | | 2.22 | 0.0E+00 | AB005622.1 | EST_HUMAN | AB005622 HeLa cDNA (T.Noma) Homo sapiens cDNA similar to adenylate kinase isozyme 2 |
| 2505 | 15632 | 28752 | 6.05 | 0.0E+00 | 6006002 | NT | Homo sapiens glutamate receptor, ionotropic, N-methyl D-aspartate 2A (GRIN2A) mRNA |
| 2510 | 15636 | 28756 | 1.99 | 0.0E+00 | D85606.1 | NT | Homo sapiens gene for cholecystokinin type-A receptor, complete cds |
| 2510 | 15636 | 28757 | 1.99 | 0.0E+00 | D85606.1 | NT | Homo sapiens gene for cholecystokinin type-A receptor, complete cds |
| 2520 | 15646 | 28769 | 2.42 | 0.0E+00 | AF106275.1 | NT | Homo sapiens immunoglobulin-like transcript 1c variant 4 (ILT1c) gene, exon 6 |
| 2524 | 15649 | 28773 | 0.96 | 0.0E+00 | BF345274.1 | EST_HUMAN | 602018058F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4153670 5' |
| 2530 | 15655 | 28780 | 3.64 | 0.0E+00 | 5729777 | NT | Homo sapiens collagen, type XII, alpha 1 (COL12A1), mRNA |
| 2538 | 15663 | 28786 | 1.02 | 0.0E+00 | U13666.1 | NT | Human G protein-coupled receptor (GPR1) gene, complete cds |
| 2538 | 15663 | 28787 | 1.02 | 0.0E+00 | U13666.1 | NT | Human G protein-coupled receptor (GPR1) gene, complete cds |
| 2539 | 15664 | 28788 | 28.11 | 0.0E+00 | BF569144.1 | EST_HUMAN | 602184558T1 NIH_MGC_42 Homo sapiens cDNA clone IMAGE:4300383 3' |
| 2547 | 15672 | 28796 | 4.18 | 0.0E+00 | AW466922.1 | EST_HUMAN | ha04h04.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2872759 3' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2550 | 15675 | 28798 | 3.03 | 0.0E+00 | AW501010.1 | EST_HUMAN | UI-HF-BP0p-als-c-07-0-UI.r1 NIH_MGC_51 Homo sapiens cDNA clone IMAGE:3072780 5' |
| 2575 | 15700 | | 2.02 | 0.0E+00 | AW813853.1 | EST_HUMAN | RC3-ST0197-300300-016-c04 ST0197 Homo sapiens cDNA |
| 2578 | 15704 | 28824 | 7.28 | 0.0E+00 | BE795542.1 | EST_HUMAN | 601592530F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3946518 5' |
| 2579 | 15135 | 28241 | 1.12 | 0.0E+00 | 7657038 | NT | Homo sapiens death receptor 6 (DR6), mRNA |
| 2580 | 15705 | 28825 | 1.44 | 0.0E+00 | BF509482.1 | EST_HUMAN | UI-H-BI4-aoz-b-08-0-UI.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3086535 3' |
| 2583 | 15708 | 28827 | 2.21 | 0.0E+00 | Z32684.2 | NT | Homo sapiens mRNA for membrane transport protein (XK gene) |
| 2585 | 15710 | | 5.17 | 0.0E+00 | 5453871 | NT | Homo sapiens platelet-derived growth factor receptor-like (PDGFRL) mRNA |
| 2587 | 15712 | 28830 | 1.07 | 0.0E+00 | BE910378.1 | EST_HUMAN | 601503356F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3905148 5' |
| 2588 | 15713 | 28831 | 2.39 | 0.0E+00 | 7657468 | NT | Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA |
| 2589 | 15714 | 28832 | 3.09 | 0.0E+00 | U93239.1 | NT | Human Sec62 (Sec62) mRNA, complete cds |
| 2595 | 15720 | 28838 | 1.66 | 0.0E+00 | BE886490.1 | EST_HUMAN | 601508211F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3909866 5' |
| 2598 | 15722 | 28842 | 13.07 | 0.0E+00 | BE875511.1 | EST_HUMAN | 601489241F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3891371 5' |
| 2598 | 15722 | 28843 | 13.07 | 0.0E+00 | BE875511.1 | EST_HUMAN | 601489241F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3891371 5' |
| 2599 | 15723 | 28844 | 1.12 | 0.0E+00 | AF245505.1 | NT | Homo sapiens adlican mRNA, complete cds |
| 2616 | 15740 | 28852 | 1.83 | 0.0E+00 | BE536921.1 | EST_HUMAN | 601064738F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3451161 5' |
| 2623 | 15746 | 28860 | 3.66 | 0.0E+00 | AU143277.1 | EST_HUMAN | AU143277 Y79AA1 Homo sapiens cDNA clone Y79AA1001673 5' |
| 2623 | 15746 | 28861 | 3.66 | 0.0E+00 | AU143277.1 | EST_HUMAN | AU143277 Y79AA1 Homo sapiens cDNA clone Y79AA1001673 5' |
| 2624 | 15747 | 28862 | 1.25 | 0.0E+00 | BE292896.1 | EST_HUMAN | 601105312F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2987955 5' |
| 2624 | 15747 | 28863 | 1.25 | 0.0E+00 | BE292896.1 | EST_HUMAN | 601105312F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2987955 5' |
| 2625 | 15748 | 28864 | 1.04 | 0.0E+00 | BF223041.1 | EST_HUMAN | 7q27h12.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE: 3' similar to TR:O00246 O00246 HYPOTHETICAL 9.3 KD PROTEIN ; |
| 2628 | 15751 | 28866 | 8.3 | 0.0E+00 | AF245505.1 | NT | Homo sapiens adlican mRNA, complete cds |
| 2664 | 16000 | 28901 | 2.18 | 0.0E+00 | AB037836.1 | NT | Homo sapiens mRNA for KIAA1415 protein, partial cds |
| 2664 | 16000 | 28902 | 2.18 | 0.0E+00 | AB037836.1 | NT | Homo sapiens mRNA for KIAA1415 protein, partial cds |
| 2665 | 15786 | | 2.35 | 0.0E+00 | BF513835.1 | EST_HUMAN | UI-H-BW1-amp-f-12-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3070631 3' |
| 2675 | 15795 | 28912 | 32.6 | 0.0E+00 | BF204131.1 | EST_HUMAN | 601869073F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4111411 5' |
| 2675 | 15795 | 28913 | 32.6 | 0.0E+00 | BF204131.1 | EST_HUMAN | 601869073F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4111411 5' |
| 2678 | 15798 | 28915 | 2.15 | 0.0E+00 | AB037742.1 | NT | Homo sapiens mRNA for KIAA1321 protein, partial cds |
| 2679 | 15799 | 28916 | 2.52 | 0.0E+00 | 5032150 | NT | Homo sapiens TATA box binding protein (TBP)-associated factor, RNA polymerase II, I, 28kD (TAF2I) mRNA |
| 2681 | 15801 | 28918 | 8.53 | 0.0E+00 | AB037859.1 | NT | Homo sapiens mRNA for KIAA1438 protein, partial cds |
| 2682 | 15802 | 28919 | 1.16 | 0.0E+00 | BE795445.1 | EST_HUMAN | 601590108F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3944304 5' |
| 2682 | 15802 | 28920 | 1.16 | 0.0E+00 | BE795445.1 | EST_HUMAN | 601590108F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3944304 5' |
| 2690 | 15810 | | 2.75 | 0.0E+00 | BE792472.1 | EST_HUMAN | 601584930F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3939222 5' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2700 | 15819 | 28935 | 2.52 | 0.0E+00 | 4504686 | NT | Homo sapiens IMP (inosine monophosphate) dehydrogenase 1 (IMPDH1) mRNA |
| 2710 | 15828 | | 1.16 | 0.0E+00 | U78027.1 | NT | Homo sapiens Bruton's tyrosine kinase (BTK), alpha-D-galactosidase A (GLA), L44-like ribosomal protein (L44L) and FTP3 (FTP3) genes, complete cds |
| 2711 | 15829 | 28942 | 5.67 | 0.0E+00 | AF173227.1 | NT | Homo sapiens guanylate cyclase-activating protein 2 (GUCA1B) gene, exon 1 |
| 2715 | 15833 | 28943 | 1.07 | 0.0E+00 | AB011108.1 | NT | Homo sapiens mRNA for KIAA0536 protein, partial cds |
| 2718 | 15836 | 28946 | 0.96 | 0.0E+00 | AU133385.1 | EST_HUMAN | AU133385 NT2RP4 Homo sapiens cDNA clone NT2RP4001964 5' |
| 2721 | 15839 | 28949 | 1.15 | 0.0E+00 | AU130403.1 | EST_HUMAN | AU130403 NT2RP3 Homo sapiens cDNA clone NT2RP3000779 5' |
| 2721 | 15839 | 28950 | 1.16 | 0.0E+00 | AU130403.1 | EST_HUMAN | AU130403 NT2RP3 Homo sapiens cDNA clone NT2RP3000779 5' |
| 2724 | 15842 | 28953 | 1.66 | 0.0E+00 | AW887015.1 | EST_HUMAN | RC1-OT0086-220300-011-d07 OT0086 Homo sapiens cDNA |
| 2727 | 15845 | 28956 | 4.83 | 0.0E+00 | BE383165.1 | EST_HUMAN | 601298714F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3628923 5' |
| 2728 | 15846 | | 2.8 | 0.0E+00 | BE531263.1 | EST_HUMAN | 601278373F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3610267 5' |
| 2763 | 15878 | 28987 | 1 | 0.0E+00 | AB037732.1 | NT | Homo sapiens mRNA for KIAA1311 protein, partial cds |
| 2785 | 15901 | | 11.99 | 0.0E+00 | AA316723.1 | EST_HUMAN | EST188414 HCC cell line (matastasis to liver in mouse) II Homo sapiens cDNA 5' end similar to ribosomal protein L29 |
| 2789 | 15905 | 29013 | 4.04 | 0.0E+00 | U36253.1 | NT | Human beta-prime-adaptin (BAM22) gene, exon 5 |
| 2791 | 15907 | 29015 | 3.72 | 0.0E+00 | AF110763.1 | NT | Homo sapiens skeletal muscle LIM-protein 1 (FHL1) gene, complete cds |
| 2792 | 15908 | 29016 | 2.32 | 0.0E+00 | AB051826.1 | NT | Homo sapiens hG28K mRNA for GTP-binding protein like 1, complete cds |
| 2797 | 15912 | 29020 | 11.38 | 0.0E+00 | BE796376.1 | EST_HUMAN | 601591991F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3945983 5' |
| 2800 | 16072 | 29024 | 17.3 | 0.0E+00 | BE563433.1 | EST_HUMAN | 601335485F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3689564 5' |
| 2801 | 15915 | | 3.28 | 0.0E+00 | AV721647.1 | EST_HUMAN | AV721647 HTB Homo sapiens cDNA clone HTBBYE09 5' |
| 2803 | 15917 | 29027 | 2.18 | 0.0E+00 | 5174486 | NT | Homo sapiens spermatogenesis associated PD1 (KIAA0757) mRNA |
| 2803 | 15917 | 29028 | 2.18 | 0.0E+00 | 5174486 | NT | Homo sapiens spermatogenesis associated PD1 (KIAA0757) mRNA |
| 2804 | 15918 | 29029 | 2.21 | 0.0E+00 | AF290195.1 | NT | Homo sapiens hypertension-related calcium-regulated gene mRNA, complete cds |
| 2805 | 15919 | | 47.74 | 0.0E+00 | AV651066.1 | EST_HUMAN | AV651066 GLC Homo sapiens cDNA clone GLCCLD07 3' |
| 2806 | 15920 | 29030 | 5.84 | 0.0E+00 | BF377897.1 | EST_HUMAN | CM1-TN0141-250900-439-b08 TN0141 Homo sapiens cDNA |
| 2806 | 15920 | 29031 | 5.84 | 0.0E+00 | BF377897.1 | EST_HUMAN | CM1-TN0141-250900-439-b08 TN0141 Homo sapiens cDNA |
| 2810 | 15924 | 29034 | 1.15 | 0.0E+00 | 4757963 | NT | Homo sapiens cerebellar degeneration-related protein (34kD) (CDR1) mRNA |
| 2810 | 15924 | 29035 | 1.15 | 0.0E+00 | 4757963 | NT | Homo sapiens cerebellar degeneration-related protein (34kD) (CDR1) mRNA |
| 2813 | 15927 | 29039 | 21.96 | 0.0E+00 | BE747193.1 | EST_HUMAN | 601580903F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3929472 5' |
| 2814 | 15928 | 29040 | 1.05 | 0.0E+00 | N44974.1 | EST_HUMAN | yy35h10.r1 Soares melanocyte 2NbHM Homo sapiens cDNA clone IMAGE:273283 5' similar to PIR:A45773 A45773 kelch protein, long form - fruit fly ; |
| 2816 | 15930 | 29042 | 1.15 | 0.0E+00 | BE176836.1 | EST_HUMAN | RC4-HT0587-170300-012-d11 HT0587 Homo sapiens cDNA |
| 2827 | 15941 | | 1.13 | 0.0E+00 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 2828 | 15942 | 29052 | 3.19 | 0.0E+00 | BF514110.1 | EST_HUMAN | UI-H-BW1-amw-e-07-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3071340 3' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2835 | 15949 | | 1.67 | 0.0E+00 | 4503098 | NT | Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA |
| 2841 | 15956 | 29062 | 1.08 | 0.0E+00 | 7705276 | NT | Homo sapiens angiopoietin-3 (ANG-3), mRNA |
| 2841 | 15955 | 29063 | 1.08 | 0.0E+00 | 7705276 | NT | Homo sapiens angiopoietin-3 (ANG-3), mRNA |
| 2842 | 15956 | 29064 | 5.05 | 0.0E+00 | BF677694.1 | EST_HUMAN | 602085579F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4249915 5' |
| 2848 | 15962 | 29072 | 1.33 | 0.0E+00 | 7427522 | NT | Homo sapiens protein tyrosine phosphatase, receptor type, T (PTPRT), mRNA |
| 2852 | 15966 | 29075 | 17.21 | 0.0E+00 | AV725534.1 | EST_HUMAN | AV725534 HTC Homo sapiens cDNA clone HTCCCA03 5' |
| 2852 | 15966 | 29076 | 17.21 | 0.0E+00 | AV725534.1 | EST_HUMAN | AV725534 HTC Homo sapiens cDNA clone HTCCCA03 5' |
| 2854 | 15968 | | 14.75 | 0.0E+00 | AI879163.1 | EST_HUMAN | au55d04.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2518663 5' similar to SW:R13A_HUMAN P40429 60S RIBOSOMAL PROTEIN L13A ; |
| 2857 | 15971 | 29081 | 2.14 | 0.0E+00 | BF530661.1 | EST_HUMAN | 602071957F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4214679 5' |
| 2858 | 15972 | 29082 | 71.97 | 0.0E+00 | BE872768.1 | EST_HUMAN | 601450912F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3854642 5' |
| 2860 | 15974 | 29083 | 2.42 | 0.0E+00 | AU131494.1 | EST_HUMAN | AU131494 NT2RP3 Homo sapiens cDNA clone NT2RP3002672 5' |
| 2860 | 15974 | 29084 | 2.42 | 0.0E+00 | AU131494.1 | EST_HUMAN | AU131494 NT2RP3 Homo sapiens cDNA clone NT2RP3002672 5'. |
| 2861 | 15975 | 29085 | 64.06 | 0.0E+00 | BE300344.1 | EST_HUMAN | 600944794F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2960806 5' |
| 2861 | 15975 | 29086 | 64.06 | 0.0E+00 | BE300344.1 | EST_HUMAN | 600944794F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:2960806 5' |
| 2867 | 13415 | 26444 | 5.26 | 0.0E+00 | S76830.1 | NT | glycoprotein D=Duffy group antigen [human, blood, Genomic DNA, 3068 nt] |
| 2870 | 15982 | | 1.64 | 0.0E+00 | AB033281.1 | NT | Homo sapiens BTRCP2 mRNA for F-box and WD-repeats protein isoform C, complete cds |
| 2876 | 13933 | 26978 | 1.89 | 0.0E+00 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 2876 | 13933 | 26979 | 1.89 | 0.0E+00 | AF264750.1 | NT | Homo sapiens ALR-like protein mRNA, partial cds |
| 2880 | 14230 | 27287 | 2.04 | 0.0E+00 | 4503202 | NT | Homo sapiens cytochrome P450, subfamily I (dioxin-inducible), polypeptide 1 (glaucoma 3, primary infantile) (CYP1B1) mRNA |
| 2880 | 14230 | 27288 | 2.04 | 0.0E+00 | 4503202 | NT | Homo sapiens cytochrome P450, subfamily I (dioxin-inducible), polypeptide 1 (glaucoma 3, primary infantile) (CYP1B1) mRNA |
| 2897 | 16076 | 29094 | 3.73 | 0.0E+00 | X85980.1 | NT | H.sapiens serine hydroxymethyltransferase pseudogene |
| 2898 | 16077 | | 1.26 | 0.0E+00 | AF068624.1 | NT | Homo sapiens 5-aminolevulinate synthase 2 (ALAS2) gene, complete cds |
| 2900 | 16079 | | 1.91 | 0.0E+00 | AB040960.1 | NT | Homo sapiens mRNA for KIAA1527 protein, partial cds |
| 2907 | 16085 | 29099 | 4.25 | 0.0E+00 | AL163201.2 | NT | Homo sapiens chromosome 21 segment HS21C001 |
| 2911 | 16089 | 29102 | 6.5 | 0.0E+00 | M80902.1 | NT | Human AHNAK nucleoprotein mRNA, 5' end |
| 2914 | 16092 | 29104 | 0.93 | 0.0E+00 | BE154504.1 | EST_HUMAN | PM0-HT0343-281299-003-e02 HT0343 Homo sapiens cDNA |
| 2914 | 16092 | 29105 | 0.93 | 0.0E+00 | BE154504.1 | EST_HUMAN | PM0-HT0343-281299-003-e02 HT0343 Homo sapiens cDNA |
| 2916 | 16094 | | 2.05 | 0.0E+00 | X73428.1 | NT | H.sapiens Id3 gene for HLH type transcription factor |
| 2918 | 16096 | | 2.6 | 0.0E+00 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 2919 | 16097 | 29108 | 1.3 | 0.0E+00 | 7019584 | NT | Homo sapiens zinc finger protein 221 (ZNF221), mRNA |
| 2919 | 16097 | 29109 | 1.3 | 0.0E+00 | 7019584 | NT | Homo sapiens zinc finger protein 221 (ZNF221), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2919 | 16097 | 29110 | 1.3 | 0.0E+00 | 7019584 | NT | Homo sapiens zinc finger protein 221 (ZNF221), mRNA |
| 2921 | 16099 | 29111 | 15.94 | 0.0E+00 | M98478.1 | NT | Human transglutaminase mRNA, complete cds |
| 2926 | 16103 | 29117 | 30.49 | 0.0E+00 | D50657.1 | NT | Homo sapiens gammma-cytoplasmic actin (ACTGP3) pseudogene |
| 2926 | 16103 | 29118 | 30.49 | 0.0E+00 | D50657.1 | NT | Homo sapiens gammma-cytoplasmic actin (ACTGP3) pseudogene |
| 2929 | 16106 | 29121 | 3.42 | 0.0E+00 | AL096857.1 | NT | Novel human mRNA from chromosome 1, which has similarities to BAT2 genes |
| 2930 | 16107 |  | 6.12 | 0.0E+00 | Y10658.1 | NT | H.sapiens mRNA for nuclear DNA helicase II |
| 2931 | 16108 |  | 1.13 | 0.0E+00 | AF152303.1 | NT | Homo sapiens protocadherin alpha C1 (PCDH-alpha-C1) mRNA, complete cds |
| 2932 | 16109 | 29122 | 74.83 | 0.0E+00 | 4503470 | NT | Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA |
| 2932 | 16109 | 29123 | 74.83 | 0.0E+00 | 4503470 | NT | Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA |
| 2944 | 16121 | 29134 | 2.54 | 0.0E+00 | 4507280 | NT | Homo sapiens serine/threonine kinase 9 (STK9) mRNA |
| 2947 | 16124 | 29138 | 1.19 | 0.0E+00 | AL047599.1 | EST_HUMAN | DKFZp586G0621_r1 586 (synonym: hute1) Homo sapiens cDNA clone DKFZp586G0621 |
| 2948 | 16125 | 29139 | 0.96 | 0.0E+00 | 7661883 | NT | Homo sapiens KIAA0054 gene product; Helicase (KIAA0054), mRNA |
| 2948 | 16126 | 29140 | 0.96 | 0.0E+00 | 7661883 | NT | Homo sapiens KIAA0054 gene product; Helicase (KIAA0054), mRNA |
| 2949 | 16126 |  | 2.44 | 0.0E+00 | 4503098 | NT | Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA |
| 2952 | 16129 | 29142 | 5.16 | 0.0E+00 | BE081896.1 | EST_HUMAN | QV2-BT0636-130400-138-h03 BT0636 Homo sapiens cDNA |
| 2952 | 16129 | 29143 | 5.16 | 0.0E+00 | BE081896.1 | EST_HUMAN | QV2-BT0636-130400-138-h03 BT0636 Homo sapiens cDNA |
| 2958 | 16135 | 29151 | 0.77 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 2958 | 16135 | 29152 | 0.77 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 2961 | 16138 | 29156 | 2.3 | 0.0E+00 | AL163206.2 | NT | Homo sapiens chromosome 21 segment HS21C006 |
| 2961 | 16138 | 29157 | 2.3 | 0.0E+00 | AL163206.2 | NT | Homo sapiens chromosome 21 segment HS21C006 |
| 2962 | 16139 | 29158 | 1.3 | 0.0E+00 | AA215579.1 | EST_HUMAN | zr96b11.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:683517 3' similar to contains Alu repetitive element; |
| 2969 | 16145 |  | 3.99 | 0.0E+00 | Y19210.1 | NT | Homo sapiens hHb5 gene for hair keratin, exons 1 to 9 |
| 2972 | 16148 | 29167 | 1.05 | 0.0E+00 | 4758279 | NT | Homo sapiens EphA4 (EPHA4) mRNA |
| 2974 | 16150 | 29170 | 25.96 | 0.0E+00 | 4503470 | NT | Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA |
| 2975 | 16151 | 29171 | 1.15 | 0.0E+00 | AI561002.1 | EST_HUMAN | tn18d07.x1 NCI_CGAP_Brn26 Homo sapiens cDNA clone IMAGE:2167981 3' similar to TR:O16247 O16247 F44E7.2 PROTEIN. ; |
| 2975 | 16151 | 29172 | 1.15 | 0.0E+00 | AI561002.1 | EST_HUMAN | tn18d07.x1 NCI_CGAP_Brn26 Homo sapiens cDNA clone IMAGE:2167981 3' similar to TR:O16247 O16247 F44E7.2 PROTEIN. ; |
| 2977 | 16153 | 29174 | 1.18 | 0.0E+00 | P52740 | SWISSPROT | ZINC FINGER PROTEIN 132 |
| 2978 | 16154 | 29175 | 1.04 | 0.0E+00 | AF152338.1 | NT | Homo sapiens protocadherin gamma C4 (PCDH-gamma-C4) mRNA, complete cds |
| 2994 | 16170 | 29187 | 3.4 | 0.0E+00 | AB033093.1 | NT | Homo sapiens mRNA for KIAA1267 protein, partial cds |
| 2994 | 16170 | 29188 | 3.4 | 0.0E+00 | AB033093.1 | NT | Homo sapiens mRNA for KIAA1267 protein, partial cds |
| 2995 | 16171 | 29189 | 6.2 | 0.0E+00 | AB040941.1 | NT | Homo sapiens mRNA for KIAA1508 protein, partial cds |

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Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 2995 | 16171 | 29190 | 6.2 | 0.0E+00 | AB040941.1 | NT | Homo sapiens mRNA for KIAA1608 protein, partial cds |
| 2998 | 16174 | 29193 | 3.31 | 0.0E+00 | 7661903 | NT | Homo sapiens KIAA0100 gene product (KIAA0100), mRNA |
| 2998 | 16174 | 29194 | 3.31 | 0.0E+00 | 7661903 | NT | Homo sapiens KIAA0100 gene product (KIAA0100), mRNA |
| 2999 | 16175 | 29195 | 4.93 | 0.0E+00 | 5174574 | NT | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA |
| 2999 | 16175 | 29196 | 4.93 | 0.0E+00 | 5174574 | NT | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA |
| 3003 | 16178 | 29199 | 1.29 | 0.0E+00 | BF110702.1 | EST_HUMAN | 7n40d03.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3567028 3' similar to TR:Q9VLN1 Q9VLN1 CG17293 PROTEIN. ; |
| 3003 | 16178 | 29200 | 1.29 | 0.0E+00 | BF110702.1 | EST_HUMAN | 7n40d03.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3567028 3' similar to TR:Q9VLN1 Q9VLN1 CG17293 PROTEIN. ; |
| 3011 | 16187 | 29211 | 3.91 | 0.0E+00 | 4505084 | NT | Homo sapiens melanoma antigen, family B, 4 (MAGEB4), mRNA |
| 3011 | 16187 | 29212 | 3.91 | 0.0E+00 | 4505084 | NT | Homo sapiens melanoma antigen, family B, 4 (MAGEB4), mRNA |
| 3019 | 16195 | 29218 | 1.51 | 0.0E+00 | 4758827 | NT | Homo sapiens neurexin III (NRXN3) mRNA |
| 3022 | 16198 | 29221 | 0.98 | 0.0E+00 | AB033034.1 | NT | Homo sapiens mRNA for KIAA1208 protein, partial cds |
| 3024 | 16200 | 29223 | 9.6 | 0.0E+00 | AF106275.1 | NT | Homo sapiens immunoglobulin-like transcript 1c variant 4 (ILT1c) gene, exon 6 |
| 3038 | 16214 |  | 1.44 | 0.0E+00 | AI149880.1 | EST_HUMAN | qf43f09.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1752809 3' |
| 3045 | 16221 | 29242 | 0.71 | 0.0E+00 | AF281074.1 | NT | Homo sapiens neuropilin 2 (NRP2) gene, complete cds, alternatively spliced |
| 3045 | 16221 | 29243 | 0.71 | 0.0E+00 | AF281074.1 | NT | Homo sapiens neuropilin 2 (NRP2) gene, complete cds, alternatively spliced |
| 3046 | 16222 | 29244 | 0.92 | 0.0E+00 | 4506118 | NT | Homo sapiens prospero-related homeobox 1 (PROX1) mRNA |
| 3047 | 16223 | 29245 | 2.81 | 0.0E+00 | AB004884.1 | NT | Homo sapiens mRNA for PKU-alpha, partial cds |
| 3057 | 16233 | 29252 | 1.85 | 0.0E+00 | 7662273 | NT | Homo sapiens KIAA0737 gene product (KIAA0737), mRNA |
| 3058 | 16234 | 29253 | 1.92 | 0.0E+00 | AW612526.1 | EST_HUMAN | hh03f08.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2954055 3' similar to TR:O60407 O60407 PAC CLONE DJ1168D11 FROM 7P21-P22, COMPLETE SEQUENCE ; |
| 3059 | 16235 | 29254 | 2.4 | 0.0E+00 | 5729755 | NT | Homo sapiens calcium channel, voltage-dependent, gamma subunit 3 (CACNG3), mRNA |
| 3059 | 16235 | 29255 | 2.4 | 0.0E+00 | 5729755 | NT | Homo sapiens calcium channel, voltage-dependent, gamma subunit 3 (CACNG3), mRNA |
| 3067 | 16243 | 29263 | 1.17 | 0.0E+00 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 3067 | 16243 | 29264 | 1.17 | 0.0E+00 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 3091 | 16267 |  | 0.61 | 0.0E+00 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 3093 | 16269 | 29285 | 1.29 | 0.0E+00 | M74099.1 | NT | Human displacement protein (CCAAT) mRNA |
| 3102 | 16278 | 29292 | 0.68 | 0.0E+00 | 4506882 | NT | Homo sapiens semenogelin I (SEMG1) mRNA |
| 3109 | 16285 |  | 3.53 | 0.0E+00 | AF195953.1 | NT | Homo sapiens membrane-bound aminopeptidase P (XNPEP2) gene, complete cds |
| 3112 | 16288 | 29303 | 4.9 | 0.0E+00 | 5579469 | NT | Homo sapiens heat shock 70kD protein 1 (HSPA1A), mRNA |
| 3112 | 16288 | 29304 | 4.9 | 0.0E+00 | 5579469 | NT | Homo sapiens heat shock 70kD protein 1 (HSPA1A), mRNA |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3114 | 16290 | | 7.27 | 0.0E+00 | AL359403.1 | NT | Isoform 2 of a novel human mRNA from chromosome 22 |
| 3119 | 16295 | 29309 | 1.88 | 0.0E+00 | AF017433.1 | NT | Homo sapiens putative transcription factor CR53 (CR53) mRNA, partial cds |
| 3122 | 16298 | | 2.21 | 0.0E+00 | AF196779.1 | NT | Homo sapiens transcription factor IGHM enhancer 3, JM11 protein, JM4 protein, JM5 protein, T54 protein, JM10 protein, A4 differentiation-dependent protein, triple LIM domain protein 6, and synaptophysin genes, complete cds; and L-type calcium channel a> |
| 3124 | 16300 | 29313 | 3.78 | 0.0E+00 | 4504664 | NT | Homo sapiens interleukin 2 receptor, beta (IL2RB) mRNA |
| 3145 | 16321 | 29333 | 3.23 | 0.0E+00 | X03529.1 | NT | Human germline gene 16.1 for Ig lambda L-chain C region (IgL-C16.1) |
| 3151 | 16326 | | 1.92 | 0.0E+00 | AF199355.1 | NT | Homo sapiens F-box protein FBL5 (FBL5) mRNA, complete cds |
| 3155 | 16330 | 29340 | 1.75 | 0.0E+00 | AF064589.1 | NT | Homo sapiens melanoma-associated antigen (MAGE-C1) gene, complete cds |
| 3175 | 16350 | 29356 | 4.71 | 0.0E+00 | AF265208.1 | NT | Homo sapiens SWI-SNF complex protein p270 mRNA, partial cds |
| 3176 | 16351 | 29357 | 10.17 | 0.0E+00 | AF149773.1 | NT | Homo sapiens NOD1 protein (NOD1) gene, exons 1, 2, and 3 |
| 3181 | 16356 | 29361 | 3.92 | 0.0E+00 | 7662139 | NT | Homo sapiens KIAA0469 gene product (KIAA0469), mRNA |
| 3182 | 16357 | 29362 | 1.29 | 0.0E+00 | AF042075.1 | NT | Homo sapiens olfactory receptor-like protein (OLFR 42B) gene, OLFR 42B-9110 allele, partial cds |
| 3187 | 16362 | 29368 | 1.19 | 0.0E+00 | AW188146.1 | EST_HUMAN | xj92h07.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2664733 3' similar to SW:RNP_HYDHY P00677 RIBONUCLEASE PANCREATIC ; |
| 3210 | 16384 | 29395 | 3.61 | 0.0E+00 | 4826783 | NT | Homo sapiens potassium voltage-gated channel, Shab-related subfamily, member 1 (KCNB1) mRNA |
| 3219 | 16393 | 29404 | 20.63 | 0.0E+00 | L20941.1 | NT | Human ferritin heavy chain mRNA, complete cds |
| 3222 | 16396 | 29407 | 1.05 | 0.0E+00 | AB011121.1 | NT | Homo sapiens mRNA for KIAA0549 protein, partial cds |
| 3222 | 16396 | 29408 | 1.05 | 0.0E+00 | AB011121.1 | NT | Homo sapiens mRNA for KIAA0549 protein, partial cds |
| 3229 | 16403 | 29415 | 25.61 | 0.0E+00 | T94870.1 | EST_HUMAN | yo32f03.s1 Stratagene lung (#937210) Homo sapiens cDNA clone IMAGE:119453 3' similar to SP:S29539 S29539 BASIC PROTEIN, 23K - ; |
| 3244 | 16418 | 29433 | 0.93 | 0.0E+00 | BF243336.1 | EST_HUMAN | 601878507F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4107433 5' |
| 3245 | 16419 | 29434 | 1.22 | 0.0E+00 | AI968086.1 | EST_HUMAN | wu12h10.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2516803 3' |
| 3250 | 16424 | 29441 | 5.36 | 0.0E+00 | X98922.1 | NT | H.sapiens mRNA for gamma-glutamyltransferase |
| 3250 | 16424 | 29442 | 5.36 | 0.0E+00 | X98922.1 | NT | H.sapiens mRNA for gamma-glutamyltransferase |
| 3252 | 16426 | 29444 | 1.01 | 0.0E+00 | AI685950.1 | EST_HUMAN | tu38g09.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2253376 3' similar to SW:RASD_DICDI P03967 RAS-LIKE PROTEIN RASD ; |
| 3262 | 16436 | 29455 | 1.39 | 0.0E+00 | 4758827 | NT | Homo sapiens neurexin III (NRXN3) mRNA |
| 3262 | 16436 | 29456 | 1.39 | 0.0E+00 | 4758827 | NT | Homo sapiens neurexin III (NRXN3) mRNA |
| 3270 | 16444 | 29464 | 9.58 | 0.0E+00 | 4504658 | NT | Homo sapiens interleukin 1 receptor, type I (IL1R1) mRNA |
| 3288 | 16462 | 29482 | 4.54 | 0.0E+00 | M28699.1 | NT | Homo sapiens nucleolar phosphoprotein B23 (NPM1) mRNA, complete cds |
| 3292 | 16466 | 29485 | 1.92 | 0.0E+00 | 4502098 | NT | Homo sapiens solute carrier family 25 (mitochondrial carrier; adenine nucleotide translocator), member 5 (SLC25A5), nuclear gene encoding mitochondrial protein, mRNA |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3298 | 16472 | 29493 | 0.76 | 0.0E+00 | 4758055 | NT | Homo sapiens CREB binding protein (Rubinstein-Taybi syndrome) (CREBBP) mRNA |
| 3298 | 16472 | 29494 | 0.76 | 0.0E+00 | 4758055 | NT | Homo sapiens CREB binding protein (Rubinstein-Taybi syndrome) (CREBBP) mRNA |
| 3300 | 16474 | 29495 | 29.49 | 0.0E+00 | AA774783.1 | EST_HUMAN | ae87b11.s1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:971133 3' |
| 3308 | 16482 | 29503 | 8.38 | 0.0E+00 | AF286598.1 | NT | Homo sapiens angiostatin binding protein 1 mRNA, complete cds |
| 3308 | 16482 | 29504 | 8.38 | 0.0E+00 | AF286598.1 | NT | Homo sapiens angiostatin binding protein 1 mRNA, complete cds |
| 3320 | 16493 | 29510 | 3.04 | 0.0E+00 | 4557590 | NT | Homo sapiens fibrillin 1 (Marfan syndrome) (FBN1) mRNA |
| 3326 | 16499 | 29517 | 1.01 | 0.0E+00 | 4507720 | NT | Homo sapiens titin (TTN) mRNA |
| 3334 | 16507 |  | 10.18 | 0.0E+00 | M65189.1 | NT | Human connexin 43 processed pseudogene |
| 3335 | 16508 | 29524 | 0.95 | 0.0E+00 | AF019413.1 | NT | Homo sapiens HLA class III region containing tenascin X (tenascin-X) gene, partial cds; cytochrome P450 21-hydroxylase (CYP21B), complement component C4 (C4B) G11, helicase (SKI2W), RD, complement factor B (Bf), and complement component C2 (C2) genes,> |
| 3338 | 16511 | 29527 | 4.06 | 0.0E+00 | AF055084.1 | NT | Homo sapiens very large G-protein coupled receptor-1 (VLGR1) mRNA, complete cds |
| 3348 | 18464 | 29535 | 1.34 | 0.0E+00 | 4502014 | NT | Homo sapiens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA |
| 3348 | 18464 | 29536 | 1.34 | 0.0E+00 | 4502014 | NT | Homo sapiens A kinase (PRKA) anchor protein 1 (AKAP1), mRNA |
| 3363 | 16535 | 29549 | 3.56 | 0.0E+00 | AF265208.1 | NT | Homo sapiens SWI-SNF complex protein p270 mRNA, partial cds |
| 3364 | 16536 | 29550 | 0.95 | 0.0E+00 | 8923624 | NT | Homo sapiens hypothetical protein FLJ20695 (FLJ20695), mRNA |
| 3377 | 16549 | 29563 | 1.42 | 0.0E+00 | 7657038 | NT | Homo sapiens death receptor 6 (DR6), mRNA |
| 3388 | 16558 | 29573 | 0.72 | 0.0E+00 | 4885312 | NT | Homo sapiens G protein-coupled receptor 24 (GPR24), mRNA |
| 3401 | 16571 | 29586 | 3.14 | 0.0E+00 | AI589294.1 | EST_HUMAN | tr58f08.x2 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2222535 3' similar to SW:RL11_RAT P25121 60S RIBOSOMAL PROTEIN L11. ;contains Alu repetitive element; |
| 3404 | 16574 | 29589 | 9.94 | 0.0E+00 | AW955400.1 | EST_HUMAN | EST367470 MAGE resequences, MAGD Homo sapiens cDNA |
| 3412 | 16581 | 29596 | 2.41 | 0.0E+00 | AF128893.1 | NT | Homo sapiens telomerase reverse transcriptase (TERT) gene, exons 1-6 |
| 3412 | 16581 | 29597 | 2.41 | 0.0E+00 | AF128893.1 | NT | Homo sapiens telomerase reverse transcriptase (TERT) gene, exons 1-6 |
| 3413 | 16582 | 29598 | 1.03 | 0.0E+00 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 3413 | 16582 | 29599 | 1.03 | 0.0E+00 | 7657213 | NT | Homo sapiens hormonally upregulated neu tumor-associated kinase (HUNK), mRNA |
| 3416 | 16585 | 29601 | 1.29 | 0.0E+00 | 4502582 | NT | Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA |
| 3416 | 16585 | 29602 | 1.29 | 0.0E+00 | 4502582 | NT | Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA |
| 3419 | 16588 | 29604 | 11.92 | 0.0E+00 | AF111163.1 | NT | Homo sapiens pyrin (MEFV) gene, complete cds |
| 3421 | 16590 | 29606 | 1.02 | 0.0E+00 | AB040940.1 | NT | Homo sapiens mRNA for KIAA1507 protein, partial cds |
| 3428 | 16596 | 29612 | 0.79 | 0.0E+00 | BE779039.1 | EST_HUMAN | 601464995F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3868246 5' |
| 3441 | 16609 | 29627 | 0.67 | 0.0E+00 | AI632569.1 | EST_HUMAN | wb10f04.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2305279 3' similar to TR:Q91929 Q91929 ZINC FINGER PROTEIN. ; |
| 3483 | 16651 | 29667 | 10 | 0.0E+00 | AU123664.1 | EST_HUMAN | AU123664 NT2RM2 Homo sapiens cDNA clone NT2RM2000735 5' |
| 3492 | 16659 | 29671 | 1.16 | 0.0E+00 | 7706239 | NT | Homo sapiens neuroblastoma-amplified protein (LOC51594), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3493 | 16660 | 29672 | 1.26 | 0.0E+00 | AF211189.1 | NT | Homo sapiens T-type calcium channel alpha1 subunit Alpha1I-a isoform (CACNA1I) mRNA, complete cds |
| 3498 | 16665 |  | 0.94 | 0.0E+00 | AW867015.1 | EST_HUMAN | MR1-SN0033-100400-001-c08 SN0033 Homo sapiens cDNA |
| 3511 | 16677 | 29687 | 2.02 | 0.0E+00 | 7662401 | NT | Homo sapiens KIAA0952 protein (KIAA0952), mRNA |
| 3511 | 16677 | 29688 | 2.02 | 0.0E+00 | 7662401 | NT | Homo sapiens KIAA0952 protein (KIAA0952), mRNA |
| 3512 | 16678 | 29689 | 0.92 | 0.0E+00 | 4502398 | NT | Homo sapiens beaded filament structural protein 1, filensin (BFSP1) mRNA |
| 3514 | 16680 | 29690 | 2.35 | 0.0E+00 | 5803067 | NT | Homo sapiens leukocyte immunoglobulin-like receptor, subfamily A (with TM domain), member 2 (LILRA2), mRNA |
| 3523 | 15907 | 29015 | 3.08 | 0.0E+00 | AF110763.1 | NT | Homo sapiens skeletal muscle LIM-protein 1 (FHL1) gene, complete cds |
| 3528 | 16693 | 29703 | 2.46 | 0.0E+00 | 7657038 | NT | Homo sapiens death receptor 6 (DR6), mRNA |
| 3532 | 16697 | 29708 | 5.5 | 0.0E+00 | K02380.1 | NT | Bacteriophage P1 replication region including repA, parA, and parB genes and incA, incB, and incC incompatibility determinants |
| 3535 | 16700 | 29711 | 1.38 | 0.0E+00 | 7427522 | NT | Homo sapiens protein tyrosine phosphatase, receptor type, T (PTPRT), mRNA |
| 3538 | 16703 | 29714 | 1.83 | 0.0E+00 | 4557746 | NT | Homo sapiens met proto-oncogene (hepatocyte growth factor receptor) (MET) mRNA |
| 3544 | 16709 | 29719 | 4.17 | 0.0E+00 | AI935159.1 | EST_HUMAN | wp14d10.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2464819 3' similar to TR:O73634 O73634 NEURAL CELL ADHESION MOLECULE. ; |
| 3544 | 16709 | 29720 | 4.17 | 0.0E+00 | AI935159.1 | EST_HUMAN | wp14d10.x1 NCI_CGAP_Lu19 Homo sapiens cDNA clone IMAGE:2464819 3' similar to TR:O73634 O73634 NEURAL CELL ADHESION MOLECULE. ; |
| 3548 | 16713 | 29725 | 1.91 | 0.0E+00 | AJ278120.1 | NT | Homo sapiens mRNA for putative ankyrin-repeat containing protein (ORF1) |
| 3555 | 16720 | 29734 | 5.38 | 0.0E+00 | 6552332 | NT | Homo sapiens v-fos FBJ murine osteosarcoma viral oncogene homolog (FOS), mRNA |
| 3555 | 16720 | 29735 | 5.38 | 0.0E+00 | 6552332 | NT | Homo sapiens v-fos FBJ murine osteosarcoma viral oncogene homolog (FOS), mRNA |
| 3560 | 16725 | 29741 | 1.41 | 0.0E+00 | M14123.1 | NT | Human endogenous retrovirus HERV-K10 |
| 3566 | 16731 | 29747 | 5.78 | 0.0E+00 | U43293.1 | NT | Human MDS1A (AML1/MDS1 fusion) mRNA, partial cds |
| 3574 | 16739 | 29755 | 2.57 | 0.0E+00 | AF045452.1 | NT | Homo sapiens cell-line KG1 transcriptional regulatory protein p54 mRNA, complete cds |
| 3574 | 16739 | 29756 | 2.57 | 0.0E+00 | AF045452.1 | NT | Homo sapiens cell-line KG1 transcriptional regulatory protein p54 mRNA, complete cds |
| 3582 | 16747 | 29765 | 1.18 | 0.0E+00 | AF231922.1 | NT | Homo sapiens chromosome 21 unknown mRNA |
| 3594 | 16758 | 29773 | 3.29 | 0.0E+00 | BE304791.1 | EST_HUMAN | 601143853F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:3051373 5' |
| 3594 | 16758 | 29774 | 3.29 | 0.0E+00 | BE304791.1 | EST_HUMAN | 601143853F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:3051373 5' |
| 3597 | 16761 | 29777 | 1.04 | 0.0E+00 | 4826786 | NT | Homo sapiens potassium voltage-gated channel, Isk-related family, member 2 (KCNE2) mRNA |
| 3600 | 16764 | 29780 | 0.8 | 0.0E+00 | O14867 | SWISSPROT | TRANSCRIPTION REGULATOR PROTEIN BACH1 (BTB AND CNC HOMOLOG 1) (HA2303) |
| 3603 | 16767 | 29782 | 0.89 | 0.0E+00 | AI384007.1 | EST_HUMAN | te35g12.x1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:2088742 3' similar to TR:O00498 O00498 MYASTHENIA GRAVIS AUTOANTIGEN GRAVIN ; |
| 3621 | 16785 | 29801 | 0.6 | 0.0E+00 | AB032979.1 | NT | Homo sapiens mRNA for KIAA1153 protein, partial cds |
| 3621 | 16785 | 29802 | 0.6 | 0.0E+00 | AB032979.1 | NT | Homo sapiens mRNA for KIAA1153 protein, partial cds |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3623 | 16787 | 29803 | 0.68 | 0.0E+00 | AA456282.1 | EST_HUMAN | zx99h04.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:811927 5' |
| 3623 | 16787 | 29804 | 0.68 | 0.0E+00 | AA456282.1 | EST_HUMAN | zx99h04.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:811927 5' |
| 3630 | 16794 | 29811 | 1.45 | 0.0E+00 | AV701869.1 | EST_HUMAN | AV701869 ADB Homo sapiens cDNA clone ADBDAH06 5' |
| 3631 | 16795 | 29812 | 4.48 | 0.0E+00 | 4506884 | NT | Homo sapiens semenogelin II (SEMG2) mRNA |
| 3633 | 16797 | | 1.17 | 0.0E+00 | AF078868.1 | NT | Homo sapiens homologous yeast-44.2 protein mRNA, complete cds |
| 3642 | 16806 | 29820 | 1.34 | 0.0E+00 | AL133204.1 | NT | Novel human gene mapping to chomosome X |
| 3644 | 16807 | 29821 | 1.16 | 0.0E+00 | AB040909.1 | NT | Homo sapiens mRNA for KIAA1476 protein, partial cds |
| 3665 | 16828 | 29837 | 0.97 | 0.0E+00 | 6997248 | NT | Homo sapiens sal (Drosophila)-like 1 (SALL1), mRNA |
| 3665 | 16828 | 29838 | 0.97 | 0.0E+00 | 6997248 | NT | Homo sapiens sal (Drosophila)-like 1 (SALL1), mRNA |
| 3667 | 16830 | 29841 | 1.06 | 0.0E+00 | 6325463 | NT | Homo sapiens butyrophilin, subfamily 3, member A3 (BTN3A3), mRNA |
| 3672 | 16835 | | 4.28 | 0.0E+00 | AW852217.1 | EST_HUMAN | QV0-CT0225-230300-169-e01 CT0225 Homo sapiens cDNA |
| 3679 | 16842 | | 1.28 | 0.0E+00 | AF118846.1 | NT | Homo sapiens gamma-glutamylcysteine synthetase (GLCLC) gene, partial cds |
| 3680 | 16843 | 29850 | 7.65 | 0.0E+00 | BF676393.1 | EST_HUMAN | 602084583F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4248596 5' |
| 3704 | 16865 | 29868 | 0.59 | 0.0E+00 | BF672054.1 | EST_HUMAN | 602152486F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4293645 5' |
| 3704 | 16865 | 29869 | 0.59 | 0.0E+00 | BF672054.1 | EST_HUMAN | 602152486F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4293645 5' |
| 3705 | 16866 | | 0.99 | 0.0E+00 | 4826967 | NT | Homo sapiens retinoblastoma-binding protein 2 (RBBP2) mRNA |
| 3707 | 16868 | 29871 | 0.76 | 0.0E+00 | AW684693.1 | EST_HUMAN | hi84g01.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2979024 3' |
| 3707 | 16868 | 29872 | 0.76 | 0.0E+00 | AW684693.1 | EST_HUMAN | hi84g01.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2979024 3' |
| 3711 | 16872 | 29876 | 0.89 | 0.0E+00 | 4826763 | NT | Homo sapiens heparan sulfate (glucosamine) 3-O-sulfotransferase 1 (HS3ST1) mRNA |
| 3713 | 16874 | 29879 | 0.93 | 0.0E+00 | 7662319 | NT | Homo sapiens KIAA0808 gene product (KIAA0808), mRNA |
| 3720 | 16881 | 29886 | 0.74 | 0.0E+00 | 4557752 | NT | Homo sapiens midline 1 (Opitz/BBB syndrome) (MID1) mRNA |
| 3720 | 16881 | 29887 | 0.74 | 0.0E+00 | 4557752 | NT | Homo sapiens midline 1 (Opitz/BBB syndrome) (MID1) mRNA |
| 3737 | 16898 | 29901 | 2.36 | 0.0E+00 | D87327.1 | NT | Homo sapiens mRNA for G protein-coupled inward rectifier potassium channel, complete cds |
| 3741 | 16902 | | 6.29 | 0.0E+00 | 7669491 | NT | Homo sapiens glyceraldehyde-3-phosphate dehydrogenase (GAPD), mRNA |
| 3757 | 16918 | 29920 | 3.98 | 0.0E+00 | AB026542.1 | NT | Homo sapiens WAVE2 mRNA for WASP-family protein, complete cds |
| 3759 | 16920 | 29922 | 1.06 | 0.0E+00 | AB007866.2 | NT | Homo sapiens mRNA for KIAA0406 protein, partial cds |
| 3761 | 16922 | 29923 | 5.16 | 0.0E+00 | AF124250.1 | NT | Homo sapiens SH2-containing protein Nsp2 mRNA, complete cds |
| 3761 | 16922 | 29924 | 5.16 | 0.0E+00 | AF124250.1 | NT | Homo sapiens SH2-containing protein Nsp2 mRNA, complete cds |
| 3767 | 16928 | 29932 | 32.49 | 0.0E+00 | AA852743.1 | EST_HUMAN | NHTBCae15g09f1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBCae15g09 |
| 3767 | 16928 | 29933 | 32.49 | 0.0E+00 | AA852743.1 | EST_HUMAN | NHTBCae15g09f1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBCae15g09 |
| 3770 | 16931 | 29935 | 1.95 | 0.0E+00 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 3770 | 16931 | 29936 | 1.95 | 0.0E+00 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3771 | 16932 | 29937 | 0.99 | 0.0E+00 | AB002331.1 | NT | Human mRNA for KIAA0333 gene, partial cds |
| 3771 | 16932 | 29938 | 0.99 | 0.0E+00 | AB002331.1 | NT | Human mRNA for KIAA0333 gene, partial cds |
| 3774 | 16935 | 29941 | 2.4 | 0.0E+00 | AW851714.1 | EST_HUMAN | MR2-CT0222-281099-005-e05 CT0222 Homo sapiens cDNA |
| 3776 | 16937 | 29943 | 2.37 | 0.0E+00 | 5729928 | NT | Homo sapiens matrix metalloproteinase 24 (membrane-inserted) (MMP24), mRNA |
| 3778 | 16939 | 29945 | 1.15 | 0.0E+00 | AB018339.1 | NT | Homo sapiens mRNA for KIAA0796 protein, partial cds |
| 3780 | 16941 | 29947 | 0.74 | 0.0E+00 | O14867 | SWISSPROT | TRANSCRIPTION REGULATOR PROTEIN BACH1 (BTB AND CNC HOMOLOG 1) (HA2303) |
| 3782 | 16943 | 29949 | 1.02 | 0.0E+00 | AB020717.1 | NT | Homo sapiens mRNA for KIAA0910 protein, partial cds |
| 3782 | 16943 | 29950 | 1.02 | 0.0E+00 | AB020717.1 | NT | Homo sapiens mRNA for KIAA0910 protein, partial cds |
| 3794 | 16955 | 29959 | 5.42 | 0.0E+00 | AW298134.1 | EST_HUMAN | UI-H-BW0-ajs-e-12-0-UI.s1 NCI_CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2733022 3' |
| 3794 | 16955 | 29960 | 5.42 | 0.0E+00 | AW298134.1 | EST_HUMAN | UI-H-BW0-ajs-e-12-0-UI.s1 NCI_CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2733022 3' |
| 3823 | 16983 | 29986 | 1.04 | 0.0E+00 | AB004630.1 | NT | Human gene for Type XIX collagen a1 chain, exon 6 |
| 3824 | 16984 | 29987 | 1.17 | 0.0E+00 | AA463659.1 | EST_HUMAN | aa06g01.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:812496 5' similar to SW:KRB4_SHEEP P02445 KERATIN, HIGH-SULFUR MATRIX PROTEIN, IIIB4. [1] ; |
| 3831 | 16991 | 29993 | 3.23 | 0.0E+00 | 7657468 | NT | Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA |
| 3841 | 17000 | 30003 | 0.83 | 0.0E+00 | AB037835.1 | NT | Homo sapiens mRNA for KIAA1414 protein, partial cds |
| 3855 | 17015 | 30015 | 5.72 | 0.0E+00 | 7662183 | NT | Homo sapiens KIAA0569 gene product (KIAA0569), mRNA |
| 3859 | 17019 | 30018 | 18.03 | 0.0E+00 | 4506718 | NT | Homo sapiens ribosomal protein S2 (RPS2) mRNA |
| 3866 | 17025 | 30023 | 1.52 | 0.0E+00 | 7657065 | NT | Homo sapiens v-ets avian erythroblastosis virus E26 oncogene related (ERG), mRNA |
| 3866 | 17025 | 30024 | 1.52 | 0.0E+00 | 7657065 | NT | Homo sapiens v-ets avian erythroblastosis virus E26 oncogene related (ERG), mRNA |
| 3869 | 17028 | 30027 | 8.94 | 0.0E+00 | 4505594 | NT | Homo sapiens plasminogen activator inhibitor, type II (arginine-serpin) (PAI2) mRNA |
| 3922 | 17081 | 30077 | 1.96 | 0.0E+00 | AF145712.1 | NT | Homo sapiens soluble neuropilin-1 mRNA, complete cds |
| 3924 | 17083 |  | 0.73 | 0.0E+00 | AF195658.1 | NT | Homo sapiens DNA mismatch repair protein (MLH3) gene, complete cds |
| 3925 | 17084 | 30079 | 2.36 | 0.0E+00 | AF179733.1 | NT | Pan troglodytes olfactory receptor (PTR208) gene, partial cds |
| 3928 | 17087 | 30083 | 2.36 | 0.0E+00 | 7657468 | NT | Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA |
| 3928 | 17087 | 30084 | 2.36 | 0.0E+00 | 7657468 | NT | Homo sapiens similar to rat integral membrane glycoprotein POM121 (POM121L1), mRNA |
| 3929 | 17088 | 30085 | 1.74 | 0.0E+00 | AF020091.1 | NT | Homo sapiens smooth muscle myosin heavy chain SM1 mRNA, alternatively spliced, partial cds |
| 3935 | 17094 | 30092 | 1.05 | 0.0E+00 | AF127851.1 | NT | Gorilla gorilla olfactory receptor (GGO71) gene, partial cds |
| 3935 | 17094 | 30093 | 1.05 | 0.0E+00 | AF127851.1 | NT | Gorilla gorilla olfactory receptor (GGO71) gene, partial cds |
| 3936 | 17095 | 30094 | 1.29 | 0.0E+00 | AI377699.1 | EST_HUMAN | te62f10.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2091307 3' |
| 3937 | 17096 |  | 1 | 0.0E+00 | AF152498.1 | NT | Homo sapiens protocadherin beta 3 (PCDH-beta3) mRNA, complete cds |
| 3938 | 17097 | 30095 | 2.6 | 0.0E+00 | 4758199 | NT | Homo sapiens desmoplakin (DPI, DPII) (DSP) mRNA |
| 3940 | 17099 | 30096 | 15.6 | 0.0E+00 | S78685.1 | NT | Homo sapiens ATP-sensitive inwardly rectifying K-channel subunit (KCNJ6/BIR1) gene, complete cds |
| 3942 | 17101 | 30098 | 2.14 | 0.0E+00 | 7710148 | NT | Homo sapiens methyl CpG binding protein 2 (MECP2), mRNA |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 3943 | 17102 | 30099 | 1.78 | 0.0E+00 | 7662183 | NT | Homo sapiens KIAA0569 gene product (KIAA0569), mRNA |
| 3946 | 17105 | 30101 | 1.62 | 0.0E+00 | AF069601.2 | NT | Homo sapiens myosin light chain kinase isoform 2 (MLCK) mRNA, complete cds |
| 3946 | 17105 | 30102 | 1.62 | 0.0E+00 | AF069601.2 | NT | Homo sapiens myosin light chain kinase isoform 2 (MLCK) mRNA, complete cds |
| 3951 | 17109 | 30107 | 1.02 | 0.0E+00 | AB001523.1 | NT | Homo sapiens gene for TMEM1 and PWP2,complete and partial cds |
| 3951 | 17109 | 30108 | 1.02 | 0.0E+00 | AB001523.1 | NT | Homo sapiens gene for TMEM1 and PWP2,complete and partial cds |
| 3952 | 17110 | 30109 | 0.9 | 0.0E+00 | 6912735 | NT | Homo sapiens transient receptor potential channel 5 (TRPC5), mRNA |
| 3957 | 17115 | 30117 | 6.96 | 0.0E+00 | 4503178 | NT | Homo sapiens chromosome X open reading frame 5 (CXORF5) mRNA |
| 3957 | 17115 | 30118 | 6.96 | 0.0E+00 | 4503178 | NT | Homo sapiens chromosome X open reading frame 5 (CXORF5) mRNA |
| 3959 | 17117 | 30121 | 4.85 | 0.0E+00 | U09412.1 | NT | Human zinc finger protein ZNF134 mRNA, complete cds |
| 3960 | 17118 | 30122 | 1.12 | 0.0E+00 | AF114488.1 | NT | Homo sapiens intersectin short isoform (ITSN) mRNA, complete cds |
| 3963 | 17121 | 30124 | 1.23 | 0.0E+00 | 4826783 | NT | Homo sapiens potassium voltage-gated channel, Shab-related subfamily, member 1 (KCNB1) mRNA |
| 3966 | 17124 | 30127 | 1.44 | 0.0E+00 | AF012615.1 | NT | Homo sapiens familial mental retardation protein 2 (FMR2) gene, exon 11 |
| 3967 | 17125 | 30128 | 2.87 | 0.0E+00 | 4759171 | NT | Homo sapiens SC35-interacting protein 1 (SRRP129), mRNA |
| 3969 | 17127 | 30130 | 0.77 | 0.0E+00 | AF099117.1 | NT | Homo sapiens amphiphysin gene, partial cds |
| 3979 | 17136 | 30140 | 3.22 | 0.0E+00 | AI864727.1 | EST_HUMAN | wk01f01.x1 NCI_CGAP_Lym12 Homo sapiens cDNA clone IMAGE:2411065 3' similar to TR:O43340 O43340 R28830_2. ;contains element PTR7 repetitive element ; |
| 3980 | 17137 | 30141 | 1.03 | 0.0E+00 | AL163248.2 | NT | Homo sapiens chromosome 21 segment HS21C048 |
| 3983 | 17140 | 30145 | 18.17 | 0.0E+00 | 4506742 | NT | Homo sapiens ribosomal protein S8 (RPS8), mRNA |
| 3988 | 17145 | 30151 | 1.33 | 0.0E+00 | AL040338.1 | EST_HUMAN | DKFZp434N0413_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434N0413 5' |
| 3994 | 17151 | 30158 | 1.9 | 0.0E+00 | 6005887 | NT | Homo sapiens AP1 gamma subunit binding protein 1 (AP1GBP1), mRNA |
| 3994 | 17151 | 30159 | 1.9 | 0.0E+00 | 6005887 | NT | Homo sapiens AP1 gamma subunit binding protein 1 (AP1GBP1), mRNA |
| 3996 | 17153 | 30161 | 3.94 | 0.0E+00 | 4504138 | NT | Homo sapiens glutamate receptor, metabotropic 3 (GRM3) mRNA |
| 3997 | 17154 |  | 2.26 | 0.0E+00 | 4505078 | NT | Homo sapiens melanoma antigen, family B, 1 (MAGEB1) mRNA |
| 4001 | 17158 | 30164 | 0.97 | 0.0E+00 | AF149412.1 | NT | Homo sapiens HBP17 heparin-binding and FGF-binding protein gene, complete cds |
| 4013 | 17170 | 30178 | 2.65 | 0.0E+00 | 4506758 | NT | Homo sapiens ryanodine receptor 3 (RYR3) mRNA |
| 4017 | 17174 | 30182 | 1.9 | 0.0E+00 | 4585642 | NT | Homo sapiens zinc finger protein (KIAA0412) mRNA |
| 4026 | 17182 | 30191 | 5.14 | 0.0E+00 | BF355295.1 | EST_HUMAN | RC3-HT0860-170800-011-a12 HT0860 Homo sapiens cDNA |
| 4028 | 17184 | 30193 | 1.37 | 0.0E+00 | AW888221.1 | EST_HUMAN | MXRA5 Human matrix tissue expression library Homo sapiens cDNA clone Incyte 1996726 similar to MXRA5; Matrix remodeling associated gene 5 |
| 4028 | 17184 | 30194 | 1.37 | 0.0E+00 | AW888221.1 | EST_HUMAN | MXRA5 Human matrix tissue expression library Homo sapiens cDNA clone Incyte 1996726 similar to MXRA5; Matrix remodeling associated gene 5 |
| 4035 | 17191 | 30201 | 3.05 | 0.0E+00 | AF129533.1 | NT | Homo sapiens F-box protein Fbl3b (FBL3B) mRNA, partial cds |
| 4038 | 17194 | 30204 | 1.14 | 0.0E+00 | U86281.1 | NT | Homo sapiens olfactory receptor (OR7-141) gene, partial cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4038 | 17194 | 30206 | 1.14 | 0.0E+00 | U86281.1 | NT | Homo sapiens olfactory receptor (OR7-141) gene, partial cds |
| 4042 | 17198 | 30209 | 3.47 | 0.0E+00 | BE378602.1 | EST_HUMAN | 601236966F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3608800 5' |
| 4043 | 17199 | 30210 | 1.2 | 0.0E+00 | BE313146.1 | EST_HUMAN | 601153727F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3509743 5' |
| 4051 | 17207 | 30217 | 1.28 | 0.0E+00 | AW580740.1 | EST_HUMAN | PM3-LT0031-100100-003-h09 LT0031 Homo sapiens cDNA |
| 4052 | 17208 | 30218 | 1.03 | 0.0E+00 | 5360215 | NT | Homo sapiens iduronate 2-sulfatase (Hunter syndrome) (IDS), transcript variant 1, mRNA |
| 4077 | 17233 | 30238 | 0.8 | 0.0E+00 | U10991.1 | NT | Human G2 protein mRNA, partial cds |
| 4077 | 17233 | 30239 | 0.8 | 0.0E+00 | U10991.1 | NT | Human G2 protein mRNA, partial cds |
| 4077 | 17233 | 30240 | 0.8 | 0.0E+00 | U10991.1 | NT | Human G2 protein mRNA, partial cds |
| 4084 | 17239 | 30244 | 9.31 | 0.0E+00 | AF116195.1 | NT | Homo sapiens cancer-testis antigen CT10 (CT10) gene, complete cds |
| 4084 | 17239 | 30245 | 9.31 | 0.0E+00 | AF116195.1 | NT | Homo sapiens cancer-testis antigen CT10 (CT10) gene, complete cds |
| 4093 | 17248 |  | 3.51 | 0.0E+00 | M23910.1 | NT | Human MHC class II lymphocyte antigen DPw4-beta-2 pseudogene, exon 2 |
| 4095 | 17250 |  | 7.25 | 0.0E+00 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 4104 | 17258 | 30258 | 2.93 | 0.0E+00 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 4112 | 17266 | 30266 | 2.13 | 0.0E+00 | AL163268.2 | NT | Homo sapiens chromosome 21 segment HS21C068 |
| 4127 | 17281 |  | 111.8 | 0.0E+00 | 4503470 | NT | Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA |
| 4134 | 17287 |  | 0.99 | 0.0E+00 | AI657076.1 | EST_HUMAN | tt55g08.x1 *NCI_CGAP_GC6 Homo sapiens* cDNA clone IMAGE:2244734 3' similar to TR:O60309 O60309 KIAA0563 PROTEIN. ; |
| 4137 | 17289 | 30284 | 1.91 | 0.0E+00 | 7662183 | NT | Homo sapiens KIAA0569 gene product (KIAA0569), mRNA |
| 4138 | 17290 | 30285 | 2.85 | 0.0E+00 | U09366.1 | NT | Human zinc finger protein ZNF133 |
| 4157 | 17308 | 30304 | 6 | 0.0E+00 | AB015610.1 | NT | Chlorocebus aethiops mRNA for ribosomal protein S4X, complete cds |
| 4166 | 17316 |  | 3.22 | 0.0E+00 | AJ238617.1 | NT | Homo sapiens mRNA for UGA suppressor tRNA-associated antigenic protein (tRNA48 gene) |
| 4177 | 17327 | 30318 | 1.58 | 0.0E+00 | AL163203.2 | NT | Homo sapiens chromosome 21 segment HS21C003 |
| 4178 | 17328 | 30319 | 2.68 | 0.0E+00 | AJ277276.1 | NT | Homo sapiens mRNA for rapa-2 (rapa gene) |
| 4178 | 17328 | 30320 | 2.68 | 0.0E+00 | AJ277276.1 | NT | Homo sapiens mRNA for rapa-2 (rapa gene) |
| 4185 | 17335 | 30327 | 8.33 | 0.0E+00 | 5032026 | NT | Homo sapiens retinoblastoma-binding protein 4 (RBBP4) mRNA |
| 4185 | 17335 | 30328 | 8.33 | 0.0E+00 | 5032026 | NT | Homo sapiens retinoblastoma-binding protein 4 (RBBP4) mRNA |
| 4194 | 17344 | 30337 | 0.64 | 0.0E+00 | 4503914 | NT | Homo sapiens phosphoribosylglycinamide *formyltransferase, phosphoribosylglycinamide* synthetase, phosphoribosylaminoimidazole synthetase (GART) mRNA |
| 4202 | 17351 | 30343 | 6.02 | 0.0E+00 | 4885306 | NT | Homo sapiens G protein-coupled receptor 21 (GPR21), mRNA |
| 4203 | 17352 | 30344 | 11.98 | 0.0E+00 | AB006625.1 | NT | Homo sapiens mRNA for KIAA0287 gene, partial cds |
| 4206 | 17355 | 30345 | 1.26 | 0.0E+00 | 4758807 | NT. | Homo sapiens ras GTPase activating protein-like (NGAP) mRNA |
| 4207 | 17356 | 30346 | 7.08 | 0.0E+00 | 11419297 | NT | Homo sapiens IMP (inosine monophosphate) dehydrogenase 1 (IMPDH1), mRNA |
| 4208 | 17357 | 30347 | 4.33 | 0.0E+00 | AL096857.1 | NT | Novel human mRNA from chromosome 1, which has similarities to BAT2 genes |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4209 | 17358 | | 0.98 | 0.0E+00 | AA018975.1 | EST_HUMAN | ze55e09.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:362920 5' similar to contains Alu repetitive element; |
| 4218 | 17367 | 30356 | 5.32 | 0.0E+00 | AF165527.1 | NT | Homo sapiens DGCR8 (DGCR8) mRNA, complete cds |
| 4227 | 14319 | 27373 | 0.7 | 0.0E+00 | 4826947 | NT | Homo sapiens protein kinase, X-linked (PRKX) mRNA |
| 4227 | 14319 | 27374 | 0.7 | 0.0E+00 | 4826947 | NT | Homo sapiens protein kinase, X-linked (PRKX) mRNA |
| 4234 | 17381 | 30369 | 1.32 | 0.0E+00 | 4503854 | NT | Homo sapiens GA-binding protein transcription factor, alpha subunit (60kD) (GABPA), mRNA |
| 4234 | 17381 | 30370 | 1.32 | 0.0E+00 | 4503854 | NT | Homo sapiens GA-binding protein transcription factor, alpha subunit (60kD) (GABPA), mRNA |
| 4236 | 16795 | 29812 | 0.64 | 0.0E+00 | 4506884 | NT | Homo sapiens semenogelin II (SEMG2) mRNA |
| 4238 | 17384 | 30372 | 0.91 | 0.0E+00 | 8922391 | NT | Homo sapiens hypothetical protein FLJ10379 (FLJ10379), mRNA |
| 4238 | 17384 | 30373 | 0.91 | 0.0E+00 | 8922391 | NT | Homo sapiens hypothetical protein FLJ10379 (FLJ10379), mRNA |
| 4244 | 17390 | 30377 | 0.85 | 0.0E+00 | AB020702.1 | NT | Homo sapiens mRNA for KIAA0895 protein, partial cds |
| 4252 | 17398 | 30386 | 5.57 | 0.0E+00 | AI982597.1 | EST_HUMAN | wu04d04.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2515975 3' |
| 4252 | 17398 | 30387 | 5.57 | 0.0E+00 | AI982597.1 | EST_HUMAN | wu04d04.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2515975 3' |
| 4255 | 17400 | 30389 | 1 | 0.0E+00 | BE184856.1 | EST_HUMAN | MR1-HT0707-100500-001-a02 HT0707 Homo sapiens cDNA |
| 4255 | 17400 | 30390 | 1 | 0.0E+00 | BE184856.1 | EST_HUMAN | MR1-HT0707-100500-001-a02 HT0707 Homo sapiens cDNA |
| 4259 | 17404 | | 5.89 | 0.0E+00 | BE274217.1 | EST_HUMAN | 601120778F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:2967690 5' |
| 4266 | 17410 | 30398 | 2.07 | 0.0E+00 | 5729725 | NT | Homo sapiens nuclear receptor coactivator 3 (NCOA3), mRNA |
| 4272 | 17417 | | 5.76 | 0.0E+00 | AW675599.1 | EST_HUMAN | ba51f04.x1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2900095 3' similar to SW:THI2_BOVIN Q95108 MITOCHONDRIAL THIOREDOXIN PRECURSOR ; |
| 4277 | 17422 | 30410 | 1.12 | 0.0E+00 | AW408788.1 | EST_HUMAN | UI-HF-BM0-adx-c-02-0-UI.r1 NIH_MGC_38 Homo sapiens cDNA clone IMAGE:3063147 5' |
| 4278 | 17423 | 30411 | 1.55 | 0.0E+00 | 8922466 | NT | Homo sapiens hypothetical protein FLJ10498 (FLJ10498), mRNA |
| 4278 | 17423 | 30412 | 1.55 | 0.0E+00 | 8922466 | NT | Homo sapiens hypothetical protein FLJ10498 (FLJ10498), mRNA |
| 4287 | 17432 | | 2.35 | 0.0E+00 | 5174632 | NT | Homo sapiens polycystic kidney disease (polycystin) and REJ (sperm receptor for egg jelly, sea urchin homolog)-like (PKDREJ) mRNA |
| 4300 | 17443 | 30429 | 1.07 | 0.0E+00 | AB037739.1 | NT | Homo sapiens mRNA for KIAA1318 protein, partial cds |
| 4309 | 17452 | 30438 | 11.47 | 0.0E+00 | AA401438.1 | EST_HUMAN | zu68h07.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:743197 3' similar to contains Alu repetitive element;contains element MER35 repetitive element ; |
| 4309 | 17452 | 30439 | 11.47 | 0.0E+00 | AA401438.1 | EST_HUMAN | zu68h07.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:743197 3' similar to contains Alu repetitive element;contains element MER35 repetitive element ; |
| 4312 | 17455 | 30443 | 1.2 | 0.0E+00 | AF157476.1 | NT | Homo sapiens DNA polymerase zeta catalytic subunit (REV3) mRNA, complete cds |
| 4338 | 17481 | 30461 | 8.09 | 0.0E+00 | 4758199 | NT | Homo sapiens desmoplakin (DPI, DPII) (DSP) mRNA |
| 4338 | 17481 | 30462 | 8.09 | 0.0E+00 | 4758199 | NT | Homo sapiens desmoplakin (DPI, DPII) (DSP) mRNA |
| 4345 | 17488 | | 0.86 | 0.0E+00 | AL163303.2 | NT | Homo sapiens chromosome 21 segment HS21C103 |
| 4388 | 17531 | 30512 | 5.01 | 0.0E+00 | J02610.1 | NT | Human apolipoprotein B-100 mRNA, complete cds |

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| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4402 | 17545 | 30529 | 0.81 | 0.0E+00 | AW936689.1 | EST_HUMAN | PM2-DT0023-080300-004-a08 DT0023 Homo sapiens cDNA |
| 4406 | 16596 | 29612 | 0.65 | 0.0E+00 | BE779039.1 | EST_HUMAN | 601464995F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3868246 5' |
| 4410 | 17552 | 30537 | 5 | 0.0E+00 | AF174590.1 | NT | Homo sapiens F-box protein Fbl4 (FBL4) mRNA, partial cds |
| 4419 | 17560 | 30544 | 0.71 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 4419 | 17560 | 30545 | 0.71 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 4420 | 17561 |  | 2.25 | 0.0E+00 | AI189844.1 | EST_HUMAN | qd23f06.x1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:1724579 3' similar to contains MER20.b2 MER20 repetitive element ; |
| 4424 | 17564 |  | 4.58 | 0.0E+00 | U14520.1 | NT | Human CBFA3 (Cbfa3) gene, partial cds |
| 4428 | 17568 | 30550 | 0.96 | 0.0E+00 | 5174574 | NT | Homo sapiens myeloid/lymphoid or mixed-lineage leukemia (trithorax (Drosophila) homolog); translocated to, 4 (MLLT4) mRNA |
| 4445 | 17585 | 30565 | 0.72 | 0.0E+00 | 6563384 | NT | Homo sapiens protein kinase C, nu (PRKCN), mRNA |
| 4445 | 17586 | 30566 | 0.72 | 0.0E+00 | 6563384 | NT | Homo sapiens protein kinase C, nu (PRKCN), mRNA |
| 4451 | 17591 | 30572 | 1.08 | 0.0E+00 | U10991.1 | NT | Human G2 protein mRNA, partial cds |
| 4451 | 17591 | 30573 | 1.08 | 0.0E+00 | U10991.1 | NT | Human G2 protein mRNA, partial cds |
| 4460 | 17600 | 30578 | 10.33 | 0.0E+00 | 6912281 | NT | Homo sapiens COMPLEMENT COMPONENT C1q RECEPTOR (C1QR), mRNA |
| 4480 | 17620 |  | 1.06 | 0.0E+00 | AF153047.2 | NT | Homo sapiens gap junction protein connexin-36 (CX36) gene, complete cds |
| 4490 | 17630 | 30611 | 3.62 | 0.0E+00 | L14561.1 | NT | Homo sapiens plasma membrane calcium ATPase isoform 1 (ATP2B1) gene, alternative splice products, partial cds |
| 4494 | 17634 | 30616 | 6.28 | 0.0E+00 | Z80780.1 | NT | H.sapiens H2B/h gene |
| 4494 | 17634 | 30617 | 6.28 | 0.0E+00 | Z80780.1 | NT | H.sapiens H2B/h gene |
| 4500 | 17640 | 30623 | 1.59 | 0.0E+00 | X60483.1 | NT | H.sapiens H4/d gene for H4 histone |
| 4500 | 17640 | 30624 | 1.59 | 0.0E+00 | X60483.1 | NT | H.sapiens H4/d gene for H4 histone |
| 4505 | 17644 | 30630 | 10.05 | 0.0E+00 | 7662091 | NT | Homo sapiens KIAA0390 gene product (KIAA0390), mRNA |
| 4505 | 17644 | 30631 | 10.05 | 0.0E+00 | 7662091 | NT | Homo sapiens KIAA0390 gene product (KIAA0390), mRNA |
| 4517 | 17656 | 30645 | 14.1 | 0.0E+00 | 4885126 | NT | Homo sapiens caudal type homeo box transcription factor 4 (CDX4), mRNA |
| 4518 | 17657 | 30646 | 1.16 | 0.0E+00 | AJ271736.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 2/2 |
| 4519 | 17658 |  | 1.24 | 0.0E+00 | AL163207.2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 4522 | 17661 | 30648 | 1.2 | 0.0E+00 | AB037781.1 | NT | Homo sapiens mRNA for KIAA1360 protein, partial cds |
| 4553 | 17691 | 30671 | 1.9 | 0.0E+00 | 7019456 | NT | Homo sapiens myosin regulatory light chain interacting protein (MIR), mRNA |
| 4564 | 17702 |  | 6.61 | 0.0E+00 | AF195953.1 | NT | Homo sapiens membrane-bound aminopeptidase P (XNPEP2) gene, complete cds |
| 4570 | 17708 | 30687 | 2.78 | 0.0E+00 | AJ249765.1 | NT | Homo sapiens ACTN2 gene for alpha-Actinin 2, exon 10 |
| 4570 | 17708 | 30688 | 2.78 | 0.0E+00 | AJ249765.1 | NT | Homo sapiens ACTN2 gene for alpha-Actinin 2, exon 10 |
| 4574 | 17711 | 30694 | 0.69 | 0.0E+00 | W26179.1 | EST_HUMAN | 24g7 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |
| 4574 | 17711 | 30695 | 0.69 | 0.0E+00 | W26179.1 | EST_HUMAN | 24g7 Human retina cDNA randomly primed sublibrary Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4591 | 17728 | | 2.29 | 0.0E+00 | AF200629.1 | NT | Homo sapiens HPS1 gene, intron 5 |
| 4610 | 17747 | 30726 | 0.65 | 0.0E+00 | T10233.1 | EST_HUMAN | seq1329 b4HB3MA Cot8-HAP-Ft Homo sapiens cDNA clone b4HB3MA-COT8-HAP-Ft205 5' |
| 4610 | 17747 | 30727 | 0.65 | 0.0E+00 | T10233.1 | EST_HUMAN | seq1329 b4HB3MA Cot8-HAP-Ft Homo sapiens cDNA clone b4HB3MA-COT8-HAP-Ft205 5' |
| 4613 | 17750 | | 0.89 | 0.0E+00 | M14123.1 | NT | Human endogenous retrovirus HERV-K10 |
| 4623 | 17760 | 30742 | 27.37 | 0.0E+00 | AW084964.1 | EST_HUMAN | xc68e08.x1 NCI_CGAP_Eso2 Homo sapiens cDNA clone IMAGE:2589446 3' similar to SW:AHNK_HUMAN Q09666 NEUROBLAST DIFFERENTIATION ASSOCIATED PROTEIN AHNAK ; |
| 4625 | 18470 | | 2.97 | 0.0E+00 | 8051619 | NT | Homo sapiens LIM domain kinase 2 (LIMK2), transcript variant 2a, mRNA |
| 4627 | 17763 | 30745 | 1.48 | 0.0E+00 | AF016050.1 | NT | Homo sapiens vascular endothelial cell growth factor 165 receptor/neuropilin (VEGF165) mRNA, complete cds |
| 4631 | 17767 | | 8.47 | 0.0E+00 | AL163207:2 | NT | Homo sapiens chromosome 21 segment HS21C007 |
| 4633 | 17769 | 30750 | 0.97 | 0.0E+00 | AW381570.1 | EST_HUMAN | PM1-HT0305-101199-002-d03 HT0305 Homo sapiens cDNA |
| 4640 | 17776 | 30757 | 1.3 | 0.0E+00 | AJ278120.1 | NT | Homo sapiens mRNA for putative ankyrin-repeat containing protein (ORF1) |
| 4640 | 17776 | 30758 | 1.3 | 0.0E+00 | AJ278120.1 | NT | Homo sapiens mRNA for putative ankyrin-repeat containing protein (ORF1) |
| 4642 | 17778 | 30760 | 1.06 | 0.0E+00 | 4758467 | NT | Homo sapiens G protein-coupled receptor 50 (GPR50) mRNA |
| 4643 | 17779 | 30761 | 2.07 | 0.0E+00 | AF108830.1 | NT | Homo sapiens serine-threonine protein kinase (MNBH) mRNA, complete cds |
| 4651 | 17787 | 30770 | 1.02 | 0.0E+00 | S78684.1 | NT | Homo sapiens ATP-sensitive inwardly rectifying K-channel subunit (KCNJ6/BIR1) gene, exon |
| 4652 | 17788 | 30771 | 1.2 | 0.0E+00 | AF111163.1 | NT | Homo sapiens pyrin (MEFV) gene, complete cds |
| 4652 | 17788 | 30772 | 1.2 | 0.0E+00 | AF111163.1 | NT | Homo sapiens pyrin (MEFV) gene, complete cds |
| 4661 | 18471 | 30783 | 3.19 | 0.0E+00 | 6005973 | NT | Homo sapiens zinc finger protein 195 (ZNF195), mRNA |
| 4666 | 17801 | 30788 | 20.19 | 0.0E+00 | AF208161.1 | NT | Homo sapiens syncytin precursor, mRNA, complete cds |
| 4671 | 17806 | 30795 | 2.17 | 0.0E+00 | AF152337.1 | NT | Homo sapiens protocadherin gamma C3 (PCDH-gamma-C3) mRNA, complete cds |
| 4674 | 17809 | 30799 | 2.17 | 0.0E+00 | 5454175 | NT | Homo sapiens zinc finger protein 211 (ZNF211), mRNA |
| 4685 | 17820 | 30808 | 59.97 | 0.0E+00 | 4503470 | NT | Homo sapiens eukaryotic translation elongation factor 1 alpha 1 (EEF1A1) mRNA |
| 4693 | 17828 | 30814 | 0.73 | 0.0E+00 | 4505016 | NT | Homo sapiens low density lipoprotein receptor-related protein 6 (LRP6) mRNA, and translated products |
| 4697 | 17832 | 30817 | 1.84 | 0.0E+00 | 4503098 | NT | Homo sapiens chondroitin sulfate proteoglycan 4 (melanoma-associated) (CSPG4), mRNA |
| 4702 | 17837 | 30823 | 1.03 | 0.0E+00 | 4502556 | NT | Homo sapiens calcium/calmodulin-dependent protein kinase IV (CAMK4) mRNA |
| 4707 | 17842 | | 3.19 | 0.0E+00 | L35485.1 | NT | Homo sapiens iduronate sulphate sulphatase (IDS) gene, complete cds |
| 4709 | 17844 | 30826 | 15.03 | 0.0E+00 | 7662091 | NT | Homo sapiens KIAA0390 gene product (KIAA0390), mRNA |
| 4709 | 17844 | 30827 | 15.03 | 0.0E+00 | 7662091 | NT | Homo sapiens KIAA0390 gene product (KIAA0390), mRNA |
| 4724 | 17859 | 30841 | 2.87 | 0.0E+00 | AF143314.1 | NT | Homo sapiens PTEN (PTEN) gene, exons 3 through 5 |
| 4727 | 17862 | 30844 | 11.57 | 0.0E+00 | AJ245418.1 | NT | Homo sapiens mRNA for G7c protein (G7c gene located in the class III region of the major histocompatibility complex) |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4727 | 17862 | 30845 | 11.67 | 0.0E+00 | AJ245418.1 | NT | Homo sapiens mRNA for G7c protein (G7c gene located in the class III region of the major histocompatibility complex) |
| 4746 | 17881 | | 1.68 | 0.0E+00 | AA174072.1 | EST_HUMAN | zp18g08.s1 Stratagene fetal retina 937202 Homo sapiens cDNA clone IMAGE:609854 3' |
| 4749 | 17884 | | 1.98 | 0.0E+00 | 7657410 | NT | Homo sapiens odz (odd Oz/ten-m, Drosophila) homolog 1 (ODZ1), mRNA |
| 4751 | 17886 | | 3.31 | 0.0E+00 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 4752 | 17887 | 30868 | 1.33 | 0.0E+00 | AF184110.1 | NT | Homo sapiens cyclophilin-related protein (NKTR) gene, complete cds |
| 4753 | 17888 | 30869 | 4.83 | 0.0E+00 | AL163300.2 | NT | Homo sapiens chromosome 21 segment HS21C100 |
| 4754 | 17889 | | 1.95 | 0.0E+00 | AB037521.1 | NT | Homo sapiens gene for natriuretic protein, partial cds |
| 4756 | 17891 | 30870 | 0.69 | 0.0E+00 | AF195658.1 | NT | Homo sapiens DNA mismatch repair protein (MLH3) gene, complete cds |
| 4761 | 17896 | 30876 | 1.06 | 0.0E+00 | AL162331.1 | NT | Novel human gene mapping to chomosome 1 |
| 4764 | 17899 | 30879 | 31.32 | 0.0E+00 | 4557887 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 4764 | 17899 | 30880 | 31.32 | 0.0E+00 | 4557887 | NT | Homo sapiens keratin 18 (KRT18) mRNA |
| 4765 | 17900 | 30881 | 1.42 | 0.0E+00 | AF153819.1 | NT | Homo sapiens inwardly-rectifying potassium channel Kir2.1 (KCNJ2) gene, exon 2 and complete cds |
| 4765 | 17900 | 30882 | 1.42 | 0.0E+00 | AF153819.1 | NT | Homo sapiens inwardly-rectifying potassium channel Kir2.1 (KCNJ2) gene, exon 2 and complete cds |
| 4766 | 17901 | 30883 | 2.62 | 0.0E+00 | AF167441.1 | NT | Mus musculus E-cadherin binding protein E7 mRNA, complete cds |
| 4776 | 17911 | 30895 | 0.96 | 0.0E+00 | AB028970.1 | NT | Homo sapiens mRNA for KIAA1047 protein, partial cds |
| 4776 | 17911 | 30896 | 0.96 | 0.0E+00 | AB028970.1 | NT | Homo sapiens mRNA for KIAA1047 protein, partial cds |
| 4781 | 17916 | 30902 | 17.22 | 0.0E+00 | Y18890.1 | NT | Human endogenous retrovirus type K (HERV-K), gag, pol and env genes |
| 4787 | 17922 | 30910 | 1.93 | 0.0E+00 | BE081527.1 | EST_HUMAN | QV2-BT0635-160400-142-h05 BT0635 Homo sapiens cDNA |
| 4788 | 17923 | 30911 | 1.37 | 0.0E+00 | AA418246.1 | EST_HUMAN | zv96b07.s1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:767605 3' |
| 4794 | 17929 | | 1.9 | 0.0E+00 | AF086641.1 | NT | Homo sapiens truncated tenascin XB (TNXB) gene, partial cds and TNXA gene recombination breakpoint region |
| 4799 | 17934 | 30921 | 1.3 | 0.0E+00 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 4799 | 17934 | 30922 | 1.3 | 0.0E+00 | AL163278.2 | NT | Homo sapiens chromosome 21 segment HS21C078 |
| 4800 | 17935 | 30923 | 2.72 | 0.0E+00 | AB037820.1 | NT | Homo sapiens mRNA for KIAA1399 protein, partial cds |
| 4800 | 17935 | 30924 | 2.72 | 0.0E+00 | AB037820.1 | NT | Homo sapiens mRNA for KIAA1399 protein, partial cds |
| 4801 | 17936 | 30925 | 3.06 | 0.0E+00 | M74099.1 | NT | Human displacement protein (CCAAT) mRNA |
| 4804 | 17939 | 30927 | 2.06 | 0.0E+00 | 6453812 | NT | Homo sapiens butyrophilin, subfamily 2, member A2 (BTN2A2), mRNA |
| 4804 | 17939 | 30928 | 2.06 | 0.0E+00 | 6453812 | NT | Homo sapiens butyrophilin, subfamily 2, member A2 (BTN2A2), mRNA |
| 4806 | 13367 | 26400 | 2.93 | 0.0E+00 | T56945.1 | EST_HUMAN | ya83g04.r2 Stratagene fetal spleen (#937205) Homo sapiens cDNA clone IMAGE:68310 5' |
| 4806 | 13367 | 26401 | 2.93 | 0.0E+00 | T56945.1 | EST_HUMAN | ya83g04.r2 Stratagene fetal spleen (#937205) Homo sapiens cDNA clone IMAGE:68310 5' |
| 4810 | 17943 | | 1.18 | 0.0E+00 | BE278730.1 | EST_HUMAN | 601158935F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3505521 5' |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4814 | 17947 | 30932 | 1.13 | 0.0E+00 | BE390050.1 | EST_HUMAN | 601285246F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3607067 5' |
| 4830 | 17963 | 30951 | 0.95 | 0.0E+00 | 5729817 | NT | Homo sapiens ecotropic viral integration site 2B (EVI2B), mRNA |
| 4830 | 17963 | 30952 | 0.95 | 0.0E+00 | 5729817 | NT | Homo sapiens ecotropic viral integration site 2B (EVI2B), mRNA |
| 4835 | 17968 | 30956 | 50.79 | 0.0E+00 | M80902.1 | NT | Human AHNAK nucleoprotein mRNA, 5' end |
| 4838 | 17971 | 30959 | 3.07 | 0.0E+00 | M69197.1 | NT | Human haptoglobin and haptoglobin-related protein (HP and HPR) genes, complete cds |
| 4838 | 17971 | 30960 | 3.07 | 0.0E+00 | M69197.1 | NT | Human haptoglobin and haptoglobin-related protein (HP and HPR) genes, complete cds |
| 4842 | 17975 | 30965 | 2.07 | 0.0E+00 | AF184110.1 | NT | Homo sapiens cyclophilin-related protein (NKTR) gene, complete cds |
| 4844 | 17977 | 30967 | 1.05 | 0.0E+00 | 7662479 | NT | Homo sapiens KIAA1084 protein (KIAA1084), mRNA |
| 4846 | 17979 | 30968 | 1.73 | 0.0E+00 | 7662181 | NT | Homo sapiens KIAA0563 gene product (KIAA0563), mRNA |
| 4851 | 17984 | 30972 | 1.15 | 0.0E+00 | U07563.1 | NT | Human proto-oncogene tyrosine-protein kinase (ABL) gene, exon 1a and exons 2-10, complete cds |
| 4856 | 17989 | 30977 | 1.29 | 0.0E+00 | AL096857.1 | NT | Novel human mRNA from chromosome 1, which has similarities to BAT2 genes |
| 4872 | 18005 | 30987 | 0.74 | 0.0E+00 | 7304922 | NT | Homo sapiens bromodomain adjacent to zinc finger domain, 2B (BAZ2B), mRNA |
| 4872 | 18005 | 30988 | 0.74 | 0.0E+00 | 7304922 | NT | Homo sapiens bromodomain adjacent to zinc finger domain, 2B (BAZ2B), mRNA |
| 4882 | 18012 | 30996 | 1.25 | 0.0E+00 | AF026801.1 | NT | Homo sapiens alpha-3 type IX collagen (COL9A3) gene, promoter region, and exons 1-28 |
| 4886 | 18016 | 31000 | 0.82 | 0.0E+00 | 7019320 | NT | Homo sapiens proteinx0008 (AD013), mRNA |
| 4886 | 18016 | 31001 | 0.82 | 0.0E+00 | 7019320 | NT | Homo sapiens proteinx0008 (AD013), mRNA |
| 4907 | 18037 | 31025 | 1.29 | 0.0E+00 | AW444637.1 | EST_HUMAN | UI-H-BI3-ajw-c-04-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2733294 3' |
| 4911 | 18041 | 31031 | 1.18 | 0.0E+00 | AF303134.1 | NT | Homo sapiens aldehyde dehydrogenase 12 (ALDH12) mRNA, complete cds |
| 4913 | 18043 |  | 2.01 | 0.0E+00 | AF083242.1 | NT | Homo sapiens HSPC024-iso mRNA, complete cds |
| 4924 | 18054 |  | 1.33 | 0.0E+00 | M65189.1 | NT | Human connexin 43 processed pseudogene |
| 4925 | 18055 |  | 0.64 | 0.0E+00 | AW339253.1 | EST_HUMAN | xz89d06.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:2871371 3' |
| 4966 | 18095 |  | 2.87 | 0.0E+00 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 4967 | 18096 | 31072 | 1.95 | 0.0E+00 | 4505394 | NT | Homo sapiens nidogen (enactin) (NID) mRNA |
| 4970 | 18099 | 31075 | 1.09 | 0.0E+00 | X87206.1 | NT | M.fascicularis mRNA for metalloprotease-like, disintegrin-like protein, IVa |
| 4972 | 18101 | 31077 | 0.99 | 0.0E+00 | AF084479.1 | NT | Homo sapiens Williams-Beuren syndrome deletion transcript 9 (WBSCR9) mRNA, complete cds |
| 4973 | 18102 | 31078 | 1.04 | 0.0E+00 | AF097416.1 | NT | Mus musculus zinc finger transcription factor Kaiso mRNA, complete cds |
| 4974 | 18103 | 31079 | 4.54 | 0.0E+00 | 4503766 | NT | Homo sapiens fragile X mental retardation 2 (FMR2) mRNA |
| 4976 | 18105 | 31081 | 9.88 | 0.0E+00 | 4885048 | NT | Homo sapiens actin, alpha, cardiac muscle (ACTC), mRNA |
| 4977 | 18106 | 31082 | 1 | 0.0E+00 | P52740 | SWISSPROT | ZINC FINGER PROTEIN 132 |
| 4982 | 18111 | 31088 | 3.41 | 0.0E+00 | 8923080 | NT | Homo sapiens hypothetical protein FLJ20073 (FLJ20073), mRNA |
| 4985 | 18114 | 31091 | 1.35 | 0.0E+00 | M94081.1 | NT | Human Tcr-C-delta gene, exons 1-4; Tcr-V-delta gene, exons 1-2; T-cell receptor alpha (Tcr-alpha) gene, J1-J61 segments; and Tcr-C-alpha gene, exons 1-4 |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 4985 | 18114 | 31092 | 1.35 | 0.0E+00 | M94081.1 | NT | Human Tcr-C-delta gene, exons 1-4; Tcr-V-delta gene, exons 1-2; T-cell receptor alpha (Tcr-alpha) gene, J1-J61 segments; and Tcr-C-alpha gene, exons 1-4 |
| 4987 | 18116 | 31094 | 1.3 | 0.0E+00 | X94628.1 | NT | H.sapiens MeCP-2 gene |
| 4987 | 18116 | 31095 | 1.3 | 0.0E+00 | X94628.1 | NT | H.sapiens MeCP-2 gene |
| 4990 | 18119 | 31098 | 1.46 | 0.0E+00 | M55582.1 | NT | Human collagenase type IV (CLG4) gene, exon 2 |
| 4991 | 18120 | 31099 | 2.55 | 0.0E+00 | AL163280.2 | NT | Homo sapiens chromosome 21 segment HS21C080 |
| 5000 | 18129 | 31104 | 1.08 | 0.0E+00 | 5032150 | NT | Homo sapiens TATA box binding protein (TBP)-associated factor, RNA polymerase II, I, 28kD (TAF2I) mRNA |
| 5007 | 18136 | 31110 | 1.19 | 0.0E+00 | X92841.1 | NT | H.sapiens MICA gene |
| 5009 | 18138 | 31112 | 1.32 | 0.0E+00 | 4585642 | NT | Homo sapiens zinc finger protein (KIAA0412) mRNA |
| 5010 | 18139 | 31113 | 1.39 | 0.0E+00 | AB014533.1 | NT | Homo sapiens mRNA for KIAA0633 protein, partial cds |
| 5011 | 18140 | 31114 | 2.74 | 0.0E+00 | 6677648 | NT | Mus musculus zinc finger protein interacting with K protein 1 (Zik1), mRNA |
| 5012 | 18141 | 31115 | 1.02 | 0.0E+00 | 5174560 | NT | Homo sapiens meningioma expressed antigen 6 (coiled-coil proline-rich) (MGEA6), mRNA |
| 5013 | 18142 | 31116 | 0.94 | 0.0E+00 | BE007935.1 | EST_HUMAN | QV0-BN0147-280400-213-g11 BN0147 Homo sapiens cDNA |
| 5013 | 18142 | 31117 | 0.94 | 0.0E+00 | BE007935.1 | EST_HUMAN | QV0-BN0147-280400-213-g11 BN0147 Homo sapiens cDNA |
| 5014 | 18143 | 31118 | 4.26 | 0.0E+00 | 4758199 | NT | Homo sapiens desmoplakin (DPI, DPII) (DSP) mRNA |
| 5016 | 18145 | 31120 | 1.79 | 0.0E+00 | 5174560 | NT | Homo sapiens meningioma expressed antigen 6 (coiled-coil proline-rich) (MGEA6), mRNA |
| 5016 | 18145 | 31121 | 1.79 | 0.0E+00 | 5174560 | NT | Homo sapiens meningioma expressed antigen 6 (coiled-coil proline-rich) (MGEA6), mRNA |
| 5017 | 18146 | 31122 | 0.98 | 0.0E+00 | 7705546 | NT | Homo sapiens zinc-finger DNA-binding protein (HUMHOXY1), mRNA |
| 5020 | 18149 | 31127 | 11.02 | 0.0E+00 | AF055066.1 | NT | Homo sapiens MHC class 1 region |
| 5022 | 18161 |  | 2.46 | 0.0E+00 | 4505508 | NT | Homo sapiens opioid receptor, delta 1 (OPRD1) mRNA |
| 5023 | 18152 | 31130 | 2.77 | 0.0E+00 | AF091711.1 | NT | Homo sapiens splice variant AKAP350 mRNA, partial cds |
| 5036 | 18164 | 31140 | 1.55 | 0.0E+00 | 4503684 | NT | Homo sapiens farnesyl diphosphate synthase (farnesyl pyrophosphate synthetase, dimethylallyltranstransferase, geranyltranstransferase) (FDPS) mRNA |
| 5040 | 18168 |  | 1.17 | 0.0E+00 | AL163285.2 | NT | Homo sapiens chromosome 21 segment HS21C085 |
| 5042 | 18170 | 31145 | 1.14 | 0.0E+00 | D15050.1 | NT | Human mRNA for transcription factor AREB6, complete cds |
| 5042 | 18170 | 31146 | 1.14 | 0.0E+00 | D15050.1 | NT | Human mRNA for transcription factor AREB6, complete cds |
| 5043 | 18171 | 31147 | 7.67 | 0.0E+00 | AB006625.1 | NT | Homo sapiens mRNA for KIAA0287 gene, partial cds |
| 5043 | 18171 | 31148 | 7.67 | 0.0E+00 | AB006625.1 | NT | Homo sapiens mRNA for KIAA0287 gene, partial cds |
| 5049 | 18177 | 31154 | 1.39 | 0.0E+00 | 4504082 | NT | Homo sapiens glypican 4 (GPC4) mRNA |
| 5049 | 18177 | 31155 | 1.39 | 0.0E+00 | 4504082 | NT | Homo sapiens glypican 4 (GPC4) mRNA |
| 5067 | 18195 | 31169 | 1.28 | 0.0E+00 | AL163284.2 | NT | Homo sapiens chromosome 21 segment HS21C084 |
| 5073 | 18201 | 31173 | 0.71 | 0.0E+00 | 7662319 | NT | Homo sapiens KIAA0806 gene product (KIAA0806), mRNA |
| 5082 | 18210 | 31182 | 1.15 | 0.0E+00 | 8922926 | NT | Homo sapiens hypothetical protein FLJ11190 (FLJ11190), mRNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5087 | 18215 | | 7.66 | 0.0E+00 | U14967.1 | NT | Human ribosomal protein L21 mRNA, complete cds |
| 5097 | 18225 | 31197 | 1.25 | 0.0E+00 | M10976.1 | NT | Human endogenous retroviral DNA (4-1), complete retroviral segment |
| 5099 | 18227 | | 2.97 | 0.0E+00 | BE408863.1 | EST_HUMAN | 601303729F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3638118 5' |
| 5102 | 18230 | 31201 | 4.85 | 0.0E+00 | 4758199 | NT | Homo sapiens desmoplakin (DPI, DPII) (DSP) mRNA |
| 5110 | 18238 | 31205 | 1.43 | 0.0E+00 | AB028966.1 | NT | Homo sapiens mRNA for KIAA1043 protein, partial cds |
| 5121 | 18247 | 31212 | 2.32 | 0.0E+00 | 8923441 | NT | Homo sapiens hypothetical protein FLJ20477 (FLJ20477), mRNA |
| 5121 | 18247 | 31213 | 2.32 | 0.0E+00 | 8923441 | NT | Homo sapiens hypothetical protein FLJ20477 (FLJ20477), mRNA |
| 5135 | 18259 | 31225 | 0.72 | 0.0E+00 | AA601246.1 | EST_HUMAN | no14g09.s1 NCI_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1100704 3' similar to TR:E239140 E239140 SPALT PROTEIN ; |
| 5135 | 18259 | 31226 | 0.72 | 0.0E+00 | AA601246.1 | EST_HUMAN | no14g09.s1 NCI_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1100704 3' similar to TR:E239140 E239140 SPALT PROTEIN ; |
| 5135 | 18259 | 31227 | 0.72 | 0.0E+00 | AA601246.1 | EST_HUMAN | no14g09.s1 NCI_CGAP_Phe1 Homo sapiens cDNA clone IMAGE:1100704 3' similar to TR:E239140 E239140 SPALT PROTEIN ; |
| 5139 | 18262 | 31229 | 2.09 | 0.0E+00 | U82671.2 | NT | Homo sapiens chromosome Xq28 melanoma antigen family A2a (MAGEA2A), melanoma antigen family A12 (MAGEA12), melanoma antigen family A2b (MAGEA2B), melanoma antigen family A3 (MAGEA3), caltractin (CALT), NAD(P)H dehydrogenase-like protein (NSDHL), and Ll> |
| 5139 | 18262 | 31230 | 2.09 | 0.0E+00 | U82671.2 | NT | Homo sapiens chromosome Xq28 melanoma antigen family A2a (MAGEA2A), melanoma antigen family A12 (MAGEA12), melanoma antigen family A2b (MAGEA2B), melanoma antigen family A3 (MAGEA3), caltractin (CALT), NAD(P)H dehydrogenase-like protein (NSDHL), and Ll> |
| 5146 | 13440 | 26472 | 0.72 | 0.0E+00 | AF195658.1 | NT | Homo sapiens DNA mismatch repair protein (MLH3) gene, complete cds |
| 5148 | 18270 | | 1.09 | 0.0E+00 | 4758225 | NT | Homo sapiens E2F transcription factor 2 (E2F2) mRNA |
| 5160 | 18282 | 31247 | 0.64 | 0.0E+00 | U53588.1 | NT | Homo sapiens MHC class 1 region |
| 5167 | 18289 | | 1.69 | 0.0E+00 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 5170 | 18292 | | 18.98 | 0.0E+00 | D50657.1 | NT | Homo sapiens gammma-cytoplasmic actin (ACTGP3) pseudogene |
| 5182 | 18304 | 31268 | 0.92 | 0.0E+00 | 4507720 | NT | Homo sapiens titin (TTN) mRNA |
| 5196 | 18318 | 31287 | 3.55 | 0.0E+00 | X52988.1 | NT | Bacillus amyloliquefaciens sacB gene for levansucrase (EC 2.4.1.10) |
| 5197 | 18319 | 31288 | 0.61 | 0.0E+00 | X72791.1 | NT | Human endogenous retrovirus mRNA for gag protein |
| 5213 | 18334 | 31305 | 1.82 | 0.0E+00 | AF240635.1 | NT | Homo sapiens vascular endothelial cadherin 2 mRNA, complete cds |
| 5213 | 18334 | 31306 | 1.82 | 0.0E+00 | AF240635.1 | NT | Homo sapiens vascular endothelial cadherin 2 mRNA, complete cds |
| 5214 | 18335 | 31307 | 1.18 | 0.0E+00 | 5454153 | NT | Homo sapiens cyclophilin (USA-CYP) mRNA |
| 5232 | 18354 | 31322 | 0.82 | 0.0E+00 | 5902055 | NT | Homo sapiens ring finger protein (RNF), mRNA |
| 5234 | 18356 | 31323 | 4.58 | 0.0E+00 | M10905.1 | NT | Human cellular fibronectin mRNA |
| 5234 | 18356 | 31324 | 4.58 | 0.0E+00 | M10905.1 | NT | Human cellular fibronectin mRNA |
| 5236 | 18358 | 31327 | 0.8 | 0.0E+00 | Y08032.1 | NT | Human endogenous retrovirus-K, LTR U5 and gag gene |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5250 | 18371 | 31338 | 0.65 | 0.0E+00 | 5902091 | NT | Homo sapiens solute carrier family 5 (inositol transporters), member 3 (SLC5A3), mRNA |
| 5253 | 18373 | 31339 | 1.91 | 0.0E+00 | AF124250.1 | NT | Homo sapiens SH2-containing protein Nsp2 mRNA, complete cds |
| 5266 | 18385 | 31351 | 1.2 | 0.0E+00 | 8923822 | NT | Homo sapiens potassium inwardly-rectifying channel, subfamily J, member 16 (KCNJ16), mRNA |
| 5266 | 18385 | 31352 | 1.2 | 0.0E+00 | 8923822 | NT | Homo sapiens potassium inwardly-rectifying channel, subfamily J, member 16 (KCNJ16), mRNA |
| 5267 | 18386 | 31353 | 0.59 | 0.0E+00 | 7706245 | NT | Homo sapiens 4F2 light chain (LOC51597), mRNA |
| 5267 | 18386 | 31354 | 0.59 | 0.0E+00 | 7706245 | NT | Homo sapiens 4F2 light chain (LOC51597), mRNA |
| 5274 | 18393 | 31362 | 1.89 | 0.0E+00 | AL163279.2 | NT | Homo sapiens chromosome 21 segment HS21C079 |
| 5278 | 18397 | 31364 | 1.03 | 0.0E+00 | AA425183.1 | EST_HUMAN | zw44f12.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:772943 5' |
| 5278 | 18397 | 31365 | 1.03 | 0.0E+00 | AA425183.1 | EST_HUMAN | zw44f12.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:772943 5' |
| 5290 | 18408 | 31375 | 0.93 | 0.0E+00 | 7657442 | NT | Homo sapiens protocadherin 11 (PCDH11), mRNA |
| 5294 | 18412 | 31378 | 1.47 | 0.0E+00 | AF155582.1 | NT | Homo sapiens core1 UDP-galactose:N-acetylgalactosamine-alpha-R beta 1,3-galactosyltransferase (C1GALT1) mRNA, complete cds |
| 5297 | 18472 | 31382 | 1.84 | 0.0E+00 | AF167336.1 | NT | Homo sapiens interleukin 1 receptor accessory protein (IL1RAP) gene, exon 4 |
| 5300 | 18417 | 31386 | 0.94 | 0.0E+00 | S69002.1 | NT | AML1-EVI-1=AML1-EVI-1 fusion protein {rearranged translocation} [human, leukemic cell line SKH1, mRNA Mutant, 5938 nt] |
| 5301 | 18418 | 31387 | 1.93 | 0.0E+00 | AF009668.1 | NT | Multiple sclerosis associated retrovirus polyprotein (pol) mRNA, partial cds |
| 5301 | 18418 | 31388 | 1.93 | 0.0E+00 | AF009668.1 | NT | Multiple sclerosis associated retrovirus polyprotein (pol) mRNA, partial cds |
| 5303 | 18420 | 31390 | 24.35 | 0.0E+00 | 5360213 | NT | Homo sapiens glypican 3 (GPC3) mRNA |
| 5306 | 18423 | 31393 | 1.07 | 0.0E+00 | 7657203 | NT | Homo sapiens acidic 82 kDa protein mRNA (HSU15552), mRNA |
| 5319 | 18435 | 31405 | 0.79 | 0.0E+00 | X76060.1 | NT | H.sapiens mRNA for YRRM2 |
| 5321 | 16426 | 29444 | 0.85 | 0.0E+00 | AI685950.1 | EST_HUMAN | tu38g09.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2253376 3' similar to SW:RASD_DICDI P03967 RAS-LIKE PROTEIN RASD ; |
| 5328 | 18441 | 31410 | 0.96 | 0.0E+00 | AF245703.1 | NT | Homo sapiens toll-like receptor 8 (TLR8) mRNA, complete cds |
| 5328 | 18441 | 31411 | 0.96 | 0.0E+00 | AF245703.1 | NT | Homo sapiens toll-like receptor 8 (TLR8) mRNA, complete cds |
| 5333 | 18446 | 31414 | 0.96 | 0.0E+00 | AL163206.2 | NT | Homo sapiens chromosome 21 segment HS21C006 |
| 5338 | 18451 | 31419 | 110.9 | 0.0E+00 | AF006061.1 | NT | Homo sapiens placental growth hormone isoform hGH-V3 (hGH-V) mRNA, complete cds |
| 5340 | 18453 | 31421 | 1.06 | 0.0E+00 | AV726632.1 | EST_HUMAN | AV726632 HTC Homo sapiens cDNA clone HTCCEA03 5' |
| 5344 | 18457 | 31423 | 1.29 | 0.0E+00 | 5174632 | NT | Homo sapiens polycystic kidney disease (polycystin) and REJ (sperm receptor for egg jelly, sea urchin homolog)-like (PKDREJ) mRNA |
| 5346 | 18459 | 31424 | 1.18 | 0.0E+00 | 4502582 | NT | Homo sapiens caspase 8, apoptosis-related cysteine protease (CASP8) mRNA |
| 5356 | 18482 |  | 2.45 | 0.0E+00 | AF093093.1 | NT | Homo sapiens aconitase (ACO2) gene, nuclear gene encoding mitochondrial protein, exon 16 |
| 5366 | 18569 | 31436 | 2.17 | 0.0E+00 | AF137286.1 | NT | Homo sapiens keratin 12 (KRT12) gene, complete cds |
| 5366 | 18569 | 31437 | 2.17 | 0.0E+00 | AF137286.1 | NT | Homo sapiens keratin 12 (KRT12) gene, complete cds |
| 5388 | 18590 | 31562 | 1.21 | 0.0E+00 | AI934954.1 | EST_HUMAN | wp06g08.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2464094 3' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5391 | 18593 | 31565 | 1.2 | 0.0E+00 | 9256579 | NT | Homo sapiens protocadherin alpha 13 (PCDHA13), mRNA |
| 5406 | 18608 | 31580 | 3.52 | 0.0E+00 | BE931080.1 | EST_HUMAN | RC3-GN0076-310800-013-b03 GN0076 Homo sapiens cDNA |
| 5410 | 18612 | 31584 | 3.5 | 0.0E+00 | AF182034.1 | NT | Homo sapiens polycystic kidney disease-like 2 protein (PKDL2) mRNA, complete cds |
| 5410 | 18612 | 31585 | 3.5 | 0.0E+00 | AF182034.1 | NT | Homo sapiens polycystic kidney disease-like 2 protein (PKDL2) mRNA, complete cds |
| 5418 | 18619 | 31594 | 8.57 | 0.0E+00 | X56163.1 | NT | H.sapiens immunoglobulin heavy chain gene, variable region |
| 5418 | 18619 | 31595 | 8.57 | 0.0E+00 | X56163.1 | NT | H.sapiens immunoglobulin heavy chain gene, variable region |
| 5499 | 18698 | 31714 | 6.41 | 0.0E+00 | BE675498.1 | EST_HUMAN | 7f10c06.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:3294250 3' |
| 5500 | 18699 | 31715 | 1.7 | 0.0E+00 | BE220753.1 | EST_HUMAN | ht99a02.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3165194 3' similar to SW:Y054_HUMAN P42694 HYPOTHETICAL PROTEIN KIAA0054. ; |
| 5501 | 18700 | 31716 | 1.57 | 0.0E+00 | BE794412.1 | EST_HUMAN | 601589422F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943804 5' |
| 5501 | 18700 | 31717 | 1.57 | 0.0E+00 | BE794412.1 | EST_HUMAN | 601589422F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943804 5' |
| 5502 | 18701 | 31718 | 0.72 | 0.0E+00 | AI189142.1 | EST_HUMAN | qd04a04.x1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:1722702 3' similar to SW:T2D3_DROME P49846 TRANSCRIPTION INITIATION FACTOR TFIID 85 KD SUBUNIT ; |
| 5506 | 18705 | 31721 | 5.23 | 0.0E+00 | M29908.1 | NT | Homo sapiens eosinophil peroxidase (EPP) gene, exon 7 |
| 5510 | 18709 | 31724 | 1.3 | 0.0E+00 | AI791363.1 | EST_HUMAN | oh68a09.y5 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1472152 5' similar to gb:M18512 IG HEAVY CHAIN PRECURSOR V-I REGION (HUMAN); |
| 5520 | 26806 | 31732 | 4.52 | 0.0E+00 | 11421038 | NT | Homo sapiens Sp4 transcription factor (SP4), mRNA |
| 5530 | 18727 |  | 4 | 0.0E+00 | BF665962.1 | EST_HUMAN | 602118928F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4276254 5' |
| 5531 | 18728 | 31743 | 0.78 | 0.0E+00 | AU134406.1 | EST_HUMAN | AU134406 OVARC1 Homo sapiens cDNA clone OVARC1001894 5' |
| 5531 | 18728 | 31744 | 0.78 | 0.0E+00 | AU134406.1 | EST_HUMAN | AU134406 OVARC1 Homo sapiens cDNA clone OVARC1001894 5' |
| 5537 | 18734 | 31751 | 0.61 | 0.0E+00 | BE538857.1 | EST_HUMAN | 601061489F1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3447839 5' |
| 5546 | 18743 | 31777 | 1.63 | 0.0E+00 | BE292784.1 | EST_HUMAN | 601105891F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2988310 5' |
| 5551 | 18748 | 31783 | 1.65 | 0.0E+00 | BF526328.1 | EST_HUMAN | 602071372F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4214272 5' |
| 5551 | 18748 | 31784 | 1.65 | 0.0E+00 | BF526328.1 | EST_HUMAN | 602071372F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4214272 5' |
| 5570 | 20121 | 33535 | 1.71 | 0.0E+00 | 4557364 | NT | Homo sapiens Bloom syndrome (BLM) mRNA |
| 5573 | 18769 | 31811 | 1.29 | 0.0E+00 | AB007935.1 | NT | Homo sapiens mRNA for KIAA0466 protein, partial cds |
| 5573 | 18769 | 31812 | 1.29 | 0.0E+00 | AB007935.1 | NT | Homo sapiens mRNA for KIAA0466 protein, partial cds |
| 5577 | 18772 | 31816 | 8.95 | 0.0E+00 | AF257737.1 | NT | Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds |
| 5577 | 18772 | 31817 | 8.95 | 0.0E+00 | AF257737.1 | NT | Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds |
| 5590 | 18785 | 31831 | 1.34 | 0.0E+00 | D26535.1 | NT | Human gene for dihydrolipoamide succinyltransferase, complete cds (exon 1-15) |
| 5590 | 18785 | 31832 | 1.34 | 0.0E+00 | D26535.1 | NT | Human gene for dihydrolipoamide succinyltransferase, complete cds (exon 1-15) |
| 5606 | 18801 | 31867 | 2.01 | 0.0E+00 | 11420819 | NT | Homo sapiens olfactory receptor, family 2, subfamily F, member 1 (OR2F1), mRNA |
| 5612 | 18806 | 31873 | 0.79 | 0.0E+00 | Z38133.1 | NT | H.sapiens mRNA for myosin |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5630 | 18824 | 31898 | 0.73 | 0.0E+00 | D61564.1 | EST_HUMAN | HUM418D05B Clontech human fetal brain polyA+ mRNA (#6535) Homo sapiens cDNA clone GEN-418D05 5' |
| 5630 | 18824 | 31899 | 0.73 | 0.0E+00 | D61564.1 | EST_HUMAN | HUM418D05B Clontech human fetal brain polyA+ mRNA (#6535) Homo sapiens cDNA clone GEN-418D05 5' |
| 5633 | 18827 | 31903 | 2.92 | 0.0E+00 | BF529931.1 | EST_HUMAN | 602042322F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4179988 5' |
| 5633 | 18827 | 31904 | 2.92 | 0.0E+00 | BF529931.1 | EST_HUMAN | 602042322F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4179988 5' |
| 5638 | 18832 | 31908 | 2.62 | 0.0E+00 | BF313139.1 | EST_HUMAN | 601897658F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4126815 5' |
| 5649 | 18843 | 32124 | 4.23 | 0.0E+00 | 11434392 | NT | Homo sapiens calcium channel, voltage-dependent, alpha 1G subunit (CACNA1G), mRNA |
| 5664 | 18858 | 32141 | 0.59 | 0.0E+00 | AI928181.1 | EST_HUMAN | wo95b02.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2463051 3' similar to TR:O75054 O75054 KIAA0466 PROTEIN ; |
| 5664 | 18858 | 32142 | 0.59 | 0.0E+00 | AI928181.1 | EST_HUMAN | wo95b02.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2463051 3' similar to TR:O75054 O75054 KIAA0466 PROTEIN ; |
| 5682 | 18876 | 32165 | 1.3 | 0.0E+00 | BE260777.1 | EST_HUMAN | 601150252F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3502909 5' |
| 5691 | 18885 |  | 3.95 | 0.0E+00 | AW867316.1 | EST_HUMAN | MR0-SN0037-030400-001-h07 SN0037 Homo sapiens cDNA |
| 5705 | 18898 | 32190 | 2.49 | 0.0E+00 | BE292889.1 | EST_HUMAN | 601105291F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2987903 5' |
| 5705 | 18898 | 32191 | 2.49 | 0.0E+00 | BE292889.1 | EST_HUMAN | 601105291F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2987903 5' |
| 5725 | 18918 | 32212 | 1.7 | 0.0E+00 | 11420819 | NT | Homo sapiens olfactory receptor, family 2, subfamily F, member 1 (OR2F1), mRNA |
| 5725 | 18918 | 32213 | 1.7 | 0.0E+00 | 11420819 | NT | Homo sapiens olfactory receptor, family 2, subfamily F, member 1 (OR2F1), mRNA |
| 5733 | 18926 | 32221 | 4.16 | 0.0E+00 | AF064254.1 | NT | Homo sapiens very long-chain acyl-CoA synthetase homolog 1 mRNA, complete cds |
| 5733 | 18926 | 32222 | 4.16 | 0.0E+00 | AF064254.1 | NT | Homo sapiens very long-chain acyl-CoA synthetase homolog 1 mRNA, complete cds |
| 5740 | 18933 | 32232 | 2.64 | 0.0E+00 | AJ224639.1 | NT | Homo sapiens Surf-5 and Surf-6 genes |
| 5740 | 18933 | 32233 | 2.64 | 0.0E+00 | AJ224639.1 | NT | Homo sapiens Surf-5 and Surf-6 genes |
| 5769 | 18961 | 32262 | 1 | 0.0E+00 | AI198516.1 | EST_HUMAN | qf94g10.x1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:1757730 3' similar to SW:CADC_HUMAN P55289 BRAIN-CADHERIN PRECURSOR ; |
| 5773 | 18965 | 32268 | 7.55 | 0.0E+00 | M85719.1 | EST_HUMAN | EST02238 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBCM48 |
| 5780 | 18972 | 32277 | 4.52 | 0.0E+00 | AW405472.1 | EST_HUMAN | UI-HF-BL0-adh-d-02-0-UI.r1 NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3061658 5' |
| 5793 | 18984 | 32287 | 1.12 | 0.0E+00 | Z26269.1 | NT | H.sapiens isoform 1 gene for L-type calcium channel, exon 14 adnd 15 |
| 5804 | 18994 | 32297 | 1.85 | 0.0E+00 | AW361877.1 | EST_HUMAN | PM3-CT0263-091299-007-h05 CT0263 Homo sapiens cDNA |
| 5804 | 18994 | 32298 | 1.85 | 0.0E+00 | AW361877.1 | EST_HUMAN | PM3-CT0263-091299-007-h05 CT0263 Homo sapiens cDNA |
| 5804 | 18994 | 32299 | 1.85 | 0.0E+00 | AW361877.1 | EST_HUMAN | PM3-CT0263-091299-007-h05 CT0263 Homo sapiens cDNA |
| 5807 | 18997 | 32302 | 0.59 | 0.0E+00 | AB035266.1 | NT | Homo sapiens mRNA for neurexin II, complete cds |
| 5807 | 18997 | 32303 | 0.59 | 0.0E+00 | AB035266.1 | NT | Homo sapiens mRNA for neurexin II, complete cds |
| 5809 | 18999 | 32306 | 1.67 | 0.0E+00 | U36261.1 | NT | Human beta-prime-adaptin (BAM22) gene, exon 13 |
| 5840 | 19030 | 32336 | 1.02 | 0.0E+00 | AB046861.1 | NT | Homo sapiens mRNA for KIAA1641 protein, partial cds |

### Table 4
### Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 5899 | 19088 | 32400 | 1.49 | 0.0E+00 | AJ006345.1 | NT | Homo sapiens KVLQT1 gene |
| 5899 | 19088 | 32401 | 1.49 | 0.0E+00 | AJ006345.1 | NT | Homo sapiens KVLQT1 gene |
| 5906 | 19095 | 32410 | 1.23 | 0.0E+00 | AI207616.1 | EST_HUMAN | HA2981 Human fetal liver cDNA library Homo sapiens cDNA |
| 5928 | 19114 | 32427 | 4.63 | 0.0E+00 | 11416801 | NT | Homo sapiens protocadherin beta 2 (PCDHB2), mRNA |
| 5933 | 19119 | 32430 | 1.19 | 0.0E+00 | BE791173.1 | EST_HUMAN | 601584032F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3938551 5' |
| 5942 | 19128 | 32441 | 1.1 | 0.0E+00 | 9998943 | NT | Homo sapiens amiloride-sensitive cation channel 1, neuronal (degenerin) (ACCN1), mRNA |
| 5943 | 19129 | 32442 | 7.24 | 0.0E+00 | BE560082.1 | EST_HUMAN | 601345141F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3677843 5' |
| 5944 | 19130 | 32443 | 2.46 | 0.0E+00 | 10048478 | NT | Mus musculus aczonin (Acz), mRNA |
| 5945 | 19131 | 32444 | 3.06 | 0.0E+00 | U86961.1 | NT | Human L-type calcium channel beta-1 subunit (CACNLB1) gene, exon 13B and isoform beta-1B, complete cds |
| 5945 | 19131 | 32445 | 3.06 | 0.0E+00 | U86961.1 | NT | Human L-type calcium channel beta-1 subunit (CACNLB1) gene, exon 13B and isoform beta-1B, complete cds |
| 5966 | 19151 | 32466 | 2.96 | 0.0E+00 | BF338835.1 | EST_HUMAN | 602036272F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4184321 5' |
| 5968 | 19154 | 32469 | 0.92 | 0.0E+00 | AF142621.1 | NT | Homo sapiens calcium channel gamma 5 subunit (CACNG5) gene, exon 4 and complete cds |
| 5969 | 19155 | 32470 | 3.07 | 0.0E+00 | BE273983.1 | EST_HUMAN | 601104462F1 NIH_MGC_14 Homo sapiens cDNA clone IMAGE:3347463 5' |
| 5979 | 19164 | 32484 | 1.12 | 0.0E+00 | BE503096.1 | EST_HUMAN | hz83d11.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3214581 3' similar to TR:Q62084 Q62084 PHOSPHOLIPASE C NEIGHBORING ; |
| 5984 | 19169 | 32491 | 2.09 | 0.0E+00 | BF569905.1 | EST_HUMAN | 602185852F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4310076 5' |
| 5989 | 19174 | 32495 | 0.99 | 0.0E+00 | AA454642.1 | EST_HUMAN | zx99d06.s1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:811883 3' |
| 6021 | 19204 | 32524 | 2.15 | 0.0E+00 | AF217289.1 | NT | Homo sapiens cadherin 20 (CDH20) mRNA, complete cds |
| 6023 | 19206 | 32526 | 4.69 | 0.0E+00 | BE828144.1 | EST_HUMAN | RC5-ET0027-210600-022-G10 ET0027 Homo sapiens cDNA |
| 6028 | 19211 | 32531 | 1.19 | 0.0E+00 | BE958636.1 | EST_HUMAN | 601645287F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:3930453 5' |
| 6044 | 19227 | 32550 | 0.58 | 0.0E+00 | BE673986.1 | EST_HUMAN | 7d72e11.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3278540 3' similar to SW:DAX1_HUMAN P51843 ORPHAN NUCLEAR RECEPTOR DAX-1. [1] ; |
| 6044 | 19227 | 32551 | 0.58 | 0.0E+00 | BE673986.1 | EST_HUMAN | 7d72e11.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3278540 3' similar to SW:DAX1_HUMAN P51843 ORPHAN NUCLEAR RECEPTOR DAX-1. [1] ; |
| 6048 | 19231 | 32555 | 0.8 | 0.0E+00 | AW276760.1 | EST_HUMAN | xp65f03.x1 NCI_CGAP_Ov39 Homo sapiens cDNA clone IMAGE:2745245 3' similar to TR:P78335 P78335 GUANYLATE KINASE ASSOCIATED PROTEIN. ; |
| 6058 | 19240 | 32565 | 0.96 | 0.0E+00 | BF031742.1 | EST_HUMAN | 601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5' |
| 6058 | 19240 | 32566 | 0.96 | 0.0E+00 | BF031742.1 | EST_HUMAN | 601558060F1 NIH_MGC_58 Homo sapiens cDNA clone IMAGE:3827775 5' |
| 6070 | 19252 | 32581 | 0.65 | 0.0E+00 | AW470846.1 | EST_HUMAN | ha34d06.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2875595 3' similar to TR:Q9Z1N3 Q9Z1N3 MYOSIN-RHOGAP PROTEIN, MYR 7. ; |
| 6082 | 19264 | 32592 | 1.09 | 0.0E+00 | BF155670.1 | EST_HUMAN | QV4-HT0894-290900-399-a10 HT0894 Homo sapiens cDNA |
| 6082 | 19264 | 32593 | 1.09 | 0.0E+00 | BF155670.1 | EST_HUMAN | QV4-HT0894-290900-399-a10 HT0894 Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6090 | 19271 | 32599 | 1.67 | 0.0E+00 | W33069.1 | EST_HUMAN | zc08h06.r1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:321755 5' |
| 6090 | 19271 | 32600 | 1.67 | 0.0E+00 | W33069.1 | EST_HUMAN | zc08h06.r1 Soares_parathyroid_tumor_NbHPA Homo sapiens cDNA clone IMAGE:321755 5' |
| 6091 | 19272 | | 2.3 | 0.0E+00 | AF012618.1 | NT | Homo sapiens familial mental retardation protein 2 (FMR2) gene, exon 14 |
| 6094 | 19275 | 32604 | 3.37 | 0.0E+00 | BE280197.1 | EST_HUMAN | 601158515F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3505323 5' |
| 6100 | 19280 | 32612 | 2.43 | 0.0E+00 | BE889610.1 | EST_HUMAN | 601512630F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3914238 5' |
| 6102 | 19282 | 32615 | 0.58 | 0.0E+00 | BE388673.1 | EST_HUMAN | 601286320F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3613085 5' |
| 6117 | 19297 | 32633 | 0.65 | 0.0E+00 | AW752848.1 | EST_HUMAN | IL3-CT0220-111199-028-E04 CT0220 Homo sapiens cDNA |
| 6120 | 19299 | 32635 | 1.72 | 0.0E+00 | 11433071 | NT | Homo sapiens KIAA0735 gene product; synaptic vesicle protein 2B homolog (KIAA0735), mRNA |
| 6120 | 19299 | 32636 | 1.72 | 0.0E+00 | 11433071 | NT | Homo sapiens KIAA0735 gene product; synaptic vesicle protein 2B homolog (KIAA0735), mRNA |
| 6121 | 19300 | 32637 | 1.15 | 0.0E+00 | BE901608.1 | EST_HUMAN | 601677735F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3960200 5' |
| 6121 | 19300 | 32638 | 1.15 | 0.0E+00 | BE901608.1 | EST_HUMAN | 601677735F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3960200 5' |
| 6121 | 19300 | 32639 | 1.15 | 0.0E+00 | BE901608.1 | EST_HUMAN | 601677735F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3960200 5' |
| 6137 | 25819 | 32656 | 10.17 | 0.0E+00 | 9789986 | NT | Homo sapiens potassium voltage-gated channel, Shal-related subfamily, member 2 (KCND2), mRNA |
| 6140 | 19318 | 32659 | 1.28 | 0.0E+00 | AA193506.1 | EST_HUMAN | zr40h01.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:665905 5' similar to SW:YY05_HUMAN P42694 HYPOTHETICAL MYELOID CELL LINE PROTEIN 5. ; |
| 6140 | 19318 | 32660 | 1.28 | 0.0E+00 | AA193506.1 | EST_HUMAN | zr40h01.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:665905 5' similar to SW:YY05_HUMAN P42694 HYPOTHETICAL MYELOID CELL LINE PROTEIN 5. ; |
| 6163 | 19339 | 32685 | 10.44 | 0.0E+00 | U34625.1 | NT | Human T cell surface glycoprotein CD-6 mRNA, complete cds |
| 6163 | 19339 | 32686 | 10.44 | 0.0E+00 | U34625.1 | NT | Human T cell surface glycoprotein CD-6 mRNA, complete cds |
| 6203 | 19378 | 32729 | 1.06 | 0.0E+00 | BE258330.1 | EST_HUMAN | 601114823F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3355565 5' |
| 6213 | 19388 | 32737 | 1.15 | 0.0E+00 | BE156561.1 | EST_HUMAN | QV0-HT0368-090200-099-e09 HT0368 Homo sapiens cDNA |
| 6223 | 19398 | 32747 | 0.66 | 0.0E+00 | M38107.1 | NT | Human neurofibromatosis type 1 (NF-1) mRNA, 3' end of cds |
| 6259 | 19433 | 32780 | 1.6 | 0.0E+00 | BE379007.1 | EST_HUMAN | 601236276F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3608490 5' |
| 6265 | 19439 | 32786 | 1.35 | 0.0E+00 | AU137772.1 | EST_HUMAN | AU137772 PLACE1 Homo sapiens cDNA clone PLACE1007201 5' |
| 6287 | 19460 | 32812 | 3.33 | 0.0E+00 | U45982.1 | NT | Human G protein-coupled receptor GPR-9-6 gene, complete cds |
| 6316 | 19488 | 32844 | 4.34 | 0.0E+00 | AA204740.1 | EST_HUMAN | zq81d03.r1 Stratagene hNT neuron (#937233) Homo sapiens cDNA clone IMAGE:648005 5' similar to TR:G854195 G854195 LEUKOCYTE SURFACE PROTEIN. ; . |
| 6317 | 19489 | 32845 | 3.89 | 0.0E+00 | 11545913 | NT | Homo sapiens xylosyltransferase II (XT2), mRNA |
| 6317 | 19489 | 32846 | 3.89 | 0.0E+00 | 11545913 | NT | Homo sapiens xylosyltransferase II (XT2), mRNA |
| 6353 | 19523 | 32880 | 2.23 | 0.0E+00 | 11426367 | NT | Homo sapiens carcinoembryonic antigen-related cell adhesion molecule 8 (CEACAM8), mRNA |
| 6357 | 19527 | 32885 | 3.15 | 0.0E+00 | BE257173.1 | EST_HUMAN | 601109532F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350622 5' |
| 6371 | 19540 | | 0.98 | 0.0E+00 | AI686048.1 | EST_HUMAN | tt91f10.x1 NCI_CGAP_Pr28 Homo sapiens cDNA clone IMAGE:2248939 3' similar to TR:Q14839 Q14839 MI-2 PROTEIN. ; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6375 | 19544 | 32902 | 1.32 | 0.0E+00 | L35930.1 | NT | Human anion exchanger (AE1) gene, exons 1-20 |
| 6383 | 19552 | 32908 | 0.96 | 0.0E+00 | BE797385.1 | EST_HUMAN | 601587971F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3942329 5' |
| 6383 | 19552 | 32909 | 0.96 | 0.0E+00 | BE797385.1 | EST_HUMAN | 601587971F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3942329 5' |
| 6393 | 19562 | 32922 | 0.71 | 0.0E+00 | AI198025.1 | EST_HUMAN | qi50b11.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:1859901 3' similar to TR:Q12838 Q12838 TFIIIC ALPHA SUBUNIT ; |
| 6393 | 19562 | 32923 | 0.71 | 0.0E+00 | AI198025.1 | EST_HUMAN | qi50b11.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:1859901 3' similar to TR:Q12838 Q12838 TFIIIC ALPHA SUBUNIT ; |
| 6395 | 19564 | 32924 | 1.11 | 0.0E+00 | BF357123.1 | EST_HUMAN | MR0-HT0923-220800-102-b05 HT0923 Homo sapiens cDNA |
| 6403 | 19572 | 32934 | 1.3 | 0.0E+00 | 11435630 | NT | Homo sapiens peptide transporter 3 (LOC51296), mRNA |
| 6413 | 19582 | 32943 | 0.59 | 0.0E+00 | D55649.1 | NT | Human mRNA for alpha mannosidase II isozyme, complete cds |
| 6429 | 19597 | 32963 | 1.07 | 0.0E+00 | AW178142.1 | EST_HUMAN | IL3-HT0062-010999-014-A04 HT0062 Homo sapiens cDNA |
| 6450 | 19617 | 32980 | 0.6 | 0.0E+00 | BE674544.1 | EST_HUMAN | 7e02c12.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3281302 3' similar to SW:Y176_HUMAN Q14681 HYPOTHETICAL PROTEIN KIAA0176 ; |
| 6454 | 19621 | 32985 | 0.77 | 0.0E+00 | 7662039 | NT | Homo sapiens KIAA0285 gene product (KIAA0285), mRNA |
| 6468 | 19635 |  | 9.28 | 0.0E+00 | AV650020.1 | EST_HUMAN | AV650020 GLC Homo sapiens cDNA clone GLCCAD09 3' |
| 6477 | 19644 | 33006 | 3.46 | 0.0E+00 | AW575598.1 | EST_HUMAN | UI-HF-BL0-acc-g-12-0-UI.s1 NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3058751 3' |
| 6480 | 19647 | 33009 | 4.53 | 0.0E+00 | H01255.1 | EST_HUMAN | yj27b03.r1 Soares placenta Nb2HP Homo sapiens cDNA clone IMAGE:149933 5' |
| 6488 | 19655 | 33018 | 0.71 | 0.0E+00 | 11426293 | NT | Homo sapiens amiloride-sensitive cation channel 1, neuronal (degenerin) (ACCN1), mRNA |
| 6492 | 19658 | 33021 | 1.67 | 0.0E+00 | X15377.1 | NT | Human gene for the light and heavy chains of myeloperoxidase |
| 6494 | 19660 | 33023 | 1.17 | 0.0E+00 | AA456375.1 | EST_HUMAN | aa14e07.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:813252 5' |
| 6495 | 19661 | 33024 | 1.04 | 0.0E+00 | AI612841.1 | EST_HUMAN | tz57d08.x1 NCI_CGAP_Ov35 Homo sapiens cDNA clone IMAGE:2292687 3' similar to SW:NTCS_HUMAN P53796 SODIUM- AND CHLORIDE-DEPENDENT CREATINE TRANSPORTER 2 ; |
| 6501 | 19667 | 33030 | 4.27 | 0.0E+00 | BE735989.1 | EST_HUMAN | 601305368F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3639616 5' |
| 6501 | 19667 | 33031 | 4.27 | 0.0E+00 | BE735989.1 | EST_HUMAN | 601305368F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3639616 5' |
| 6505 | 19671 | 33037 | 0.86 | 0.0E+00 | AW748596.1 | EST_HUMAN | MR0-BT0264-221199-002-f11 BT0264 Homo sapiens cDNA |
| 6505 | 19671 | 33038 | 0.86 | 0.0E+00 | AW748596.1 | EST_HUMAN | MR0-BT0264-221199-002-f11 BT0264 Homo sapiens cDNA |
| 6507 | 19673 | 33040 | 52.21 | 0.0E+00 | AU119245.1 | EST_HUMAN | AU119245 HEMBA1 Homo sapiens cDNA clone HEMBA1005360 5' |
| 6507 | 19673 | 33041 | 52.21 | 0.0E+00 | AU119245.1 | EST_HUMAN | AU119245 HEMBA1 Homo sapiens cDNA clone HEMBA1005360 5' |
| 6512 | 19677 | 33047 | 0.8 | 0.0E+00 | BE780453.1 | EST_HUMAN | 601468712F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3871899 5' |
| 6513 | 19678 | 33048 | 0.84 | 0.0E+00 | X92217.1 | NT | H.sapiens germline immunoglobulin heavy chain, variable region, (13-2) |
| 6527 | 19691 | 33065 | 1.71 | 0.0E+00 | AI989483.1 | EST_HUMAN | ws25c07.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2498220 3' |
| 6541 | 19704 | 33076 | 4.06 | 0.0E+00 | BE293153.1 | EST_HUMAN | 601105344F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2987963 5' |
| 6541 | 19704 | 33077 | 4.06 | 0.0E+00 | BE293153.1 | EST_HUMAN | 601105344F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2987963 5' |
| 6573 | 19735 | 33114 | 1.07 | 0.0E+00 | BE867657.1 | EST_HUMAN | 601443176F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3847291 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6609 | 19769 | 33158 | 1.81 | 0.0E+00 | AW406348.1 | EST_HUMAN | UI-HF-BL0-aco-h-02-0-UI.r1 NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3059931 5' |
| 6609 | 19769 | 33159 | 1.81 | 0.0E+00 | AW406348.1 | EST_HUMAN | UI-HF-BL0-aco-h-02-0-UI.r1 NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3059931 5' |
| 6640 | 19799 | 33188 | 0.94 | 0.0E+00 | AV719444.1 | EST_HUMAN | AV719444 GLC Homo sapiens cDNA clone GLCEHC06 5' |
| 6649 | 19808 | 33195 | 0.74 | 0.0E+00 | BE898340.1 | EST_HUMAN | 601681150F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3951301 5' |
| 6649 | 19808 | 33196 | 0.74 | 0.0E+00 | BE898340.1 | EST_HUMAN | 601681150F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3951301 5' |
| 6652 | 19811 | 33199 | 2.13 | 0.0E+00 | AF190860.1 | NT | Homo sapiens low voltage-activated T-type calcium channel alpha 1G splice variant CavT.1a (CACNA1G) mRNA, complete cds |
| 6655 | 19814 | 33202 | 0.64 | 0.0E+00 | L48546.1 | NT | Homo sapiens tuberin (TSC2) gene, exons 38, 39, 40 and 41 |
| 6657 | 19816 | 33203 | 0.99 | 0.0E+00 | 11420658 | NT | Homo sapiens transformation/transcription domain-associated protein (TRRAP), mRNA |
| 6664 | 19823 | 33210 | 3.5 | 0.0E+00 | AW163640.1 | EST_HUMAN | au96h08.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2784159 5' similar to TR:O15390 O15390 GT24. [3] TR:O43840 TR:O43206 ; |
| 6664 | 19823 | 33211 | 3.5 | 0.0E+00 | AW163640.1 | EST_HUMAN | au96h08.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2784159 5' similar to TR:O15390 O15390 GT24. [3] TR:O43840 TR:O43206 ; |
| 6668 | 19827 | 33214 | 1.06 | 0.0E+00 | W37163.1 | EST_HUMAN | zb20e06.r1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:302626 5' similar to SW:ZN45_HUMAN Q02386 ZINC FINGER PROTEIN 45 ; |
| 6668 | 19827 | 33215 | 1.06 | 0.0E+00 | W37163.1 | EST_HUMAN | zb20e06.r1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:302626 5' similar to SW:ZN45_HUMAN Q02386 ZINC FINGER PROTEIN 45 ; |
| 6684 | 19842 | 33232 | 1.21 | 0.0E+00 | BE794853.1 | EST_HUMAN | 601589371F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943504 5' |
| 6691 | 19849 | 33239 | 5.1 | 0.0E+00 | BE799873.1 | EST_HUMAN | 601587561F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3941847 5' |
| 6692 | 19850 | 33240 | 1.38 | 0.0E+00 | BE767955.1 | EST_HUMAN | QV1-GN0065-140800-318-h02 GN0065 Homo sapiens cDNA |
| 6692 | 19850 | 33241 | 1.38 | 0.0E+00 | BE767955.1 | EST_HUMAN | QV1-GN0065-140800-318-h02 GN0065 Homo sapiens cDNA |
| 6696 | 19854 | 33244 | 6.83 | 0.0E+00 | BE889813.1 | EST_HUMAN | 601512058F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913311 5' |
| 6696 | 19854 | 33245 | 6.83 | 0.0E+00 | BE889813.1 | EST_HUMAN | 601512058F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3913311 5' |
| 6705 | 19863 | 33253 | 4.51 | 0.0E+00 | L24493.1 | NT | Human antigen CD27 gene, exons 1-2 |
| 6710 | 19868 | 33257 | 2.62 | 0.0E+00 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 6710 | 19868 | 33258 | 2.62 | 0.0E+00 | AL163204.2 | NT | Homo sapiens chromosome 21 segment HS21C004 |
| 6716 | 19874 | 33265 | 3.68 | 0.0E+00 | 6005983 | NT | Homo sapiens zona pellucida glycoprotein 3A (sperm receptor) (ZP3A), mRNA |
| 6720 | 19877 | 33268 | 4.12 | 0.0E+00 | AI638412.1 | EST_HUMAN | tt31f11.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2242413 3' similar to SW:WNT3_MOUSE P17553 WNT-3 PROTO-ONCOGENE PROTEIN PRECURSOR. ; |
| 6722 | 19879 | 33270 | 1.46 | 0.0E+00 | L32832.1 | NT | Homo sapiens zinc finger homeodomain protein (ATBF1-A) mRNA, complete cds |
| 6735 | 19891 | 33283 | 0.82 | 0.0E+00 | AW505430.1 | EST_HUMAN | UI-HF-BN0-ama-o-01-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3081217 5' |
| 6737 | 19893 | 33284 | 4.11 | 0.0E+00 | AA434584.1 | EST_HUMAN | zw52c03.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:773668 5' |
| 6751 | 19907 |  | 1.13 | 0.0E+00 | BF217200.1 | EST_HUMAN | 601885317F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4103693 5' |
| 6756 | 19912 | 33307 | 1.63 | 0.0E+00 | BE925875.1 | EST_HUMAN | QV3-BN0047-300800-278-c06 BN0047 Homo sapiens cDNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 6789 | 19944 | 33342 | 0.76 | 0.0E+00 | 11426758 | NT | Homo sapiens solute carrier family 1 (high affinity aspartate/glutamate transporter), member 6 (SLC1A6), mRNA |
| 6789 | 19944 | 33343 | 0.76 | 0.0E+00 | 11426758 | NT | Homo sapiens solute carrier family 1 (high affinity aspartate/glutamate transporter), member 6 (SLC1A6), mRNA |
| 6790 | 19945 | 33345 | 0.59 | 0.0E+00 | AW611964.1 | EST_HUMAN | hg82e04.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2952126 3' |
| 6808 | 19962 | 33366 | 1.64 | 0.0E+00 | AU125928.1 | EST_HUMAN | AU125928 NT2RM4 Homo sapiens cDNA clone NT2RM4002430 5' |
| 6810 | 19964 | 33368 | 0.58 | 0.0E+00 | BE701434.1 | EST_HUMAN | PM2-NN0174-260700-001-h10 NN0174 Homo sapiens cDNA |
| 6810 | 19964 | 33369 | 0.58 | 0.0E+00 | BE701434.1 | EST_HUMAN | PM2-NN0174-260700-001-h10 NN0174 Homo sapiens cDNA |
| 6832 | 19985 | 33393 | 1.27 | 0.0E+00 | BE142363.1 | EST_HUMAN | CM0-HT0143-270999-062-d08 HT0143 Homo sapiens cDNA |
| 6854 | 20007 | 33416 | 2.43 | 0.0E+00 | BE006012.1 | EST_HUMAN | RC0-BN0121-280300-032-e04 BN0121 Homo sapiens cDNA |
| 6854 | 20007 | 33417 | 2.43 | 0.0E+00 | BE006012.1 | EST_HUMAN | RC0-BN0121-280300-032-e04 BN0121 Homo sapiens cDNA |
| 6876 | 20028 | 33438 | 7.79 | 0.0E+00 | BE169131.1 | EST_HUMAN | PM3-HT0520-230200-002-c08 HT0520 Homo sapiens cDNA |
| 6878 | 20030 | 33440 | 2.04 | 0.0E+00 | BF085667.1 | EST_HUMAN | IL5-GN0032-180900-145-d07 GN0032 Homo sapiens cDNA |
| 6915 | 20230 | 33663 | 3.33 | 0.0E+00 | AA190755.1 | EST_HUMAN | zp88c03.r1 Stratagene HeLa cell s3 937216 Homo sapiens cDNA clone IMAGE:627292 5' |
| 6926 | 20241 | 33676 | 0.83 | 0.0E+00 | U39573.1 | NT | Human salivary peroxidase mRNA, complete cds |
| 6930 | 20245 | 33678 | 0.76 | 0.0E+00 | BE671987.1 | EST_HUMAN | 7a49b07.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:3222037 3' similar to TR:Q9Z285 Q9Z285 TEKTIN. ; |
| 6940 | 20253 | 33689 | 5.73 | 0.0E+00 | AI940621.1 | EST_HUMAN | IL3-ST0024-230799-001-B01 ST0024 Homo sapiens cDNA |
| 6940 | 20253 | 33690 | 5.73 | 0.0E+00 | AI940621.1 | EST_HUMAN | IL3-ST0024-230799-001-B01 ST0024 Homo sapiens cDNA |
| 6951 | 20264 | 33703 | 2.15 | 0.0E+00 | 11435626 | NT | Homo sapiens CD6 antigen (CD6), mRNA |
| 6963 | 20191 | 33617 | 0.73 | 0.0E+00 | AL042443.1 | EST_HUMAN | DKFZp434D2021_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434D2021 5' |
| 6964 | 20192 | 33618 | 11.05 | 0.0E+00 | X56163.1 | NT | H.sapiens immunoglobulin heavy chain gene, variable region |
| 6967 | 20195 | 33621 | 0.92 | 0.0E+00 | AI168270.1 | EST_HUMAN | oo10d01.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:1565761 3' similar to TR:Q26623 Q26623 TEKTIN C1. ; |
| 6972 | 20200 | 33626 | 0.85 | 0.0E+00 | BE734087.1 | EST_HUMAN | 601567370F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3842080 5' |
| 6991 | 18510 | 31502 | 1.28 | 0.0E+00 | BE566381.1 | EST_HUMAN | 601339977F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:3682267 5' |
| 6998 | 18517 | 31509 | 13.63 | 0.0E+00 | BE867889.1 | EST_HUMAN | 601443667F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847697 5' |
| 6998 | 18517 | 31510 | 13.63 | 0.0E+00 | BE867889.1 | EST_HUMAN | 601443667F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3847697 5' |
| 7004 | 20140 | 33558 | 1.74 | 0.0E+00 | BE550162.1 | EST_HUMAN | 7b49f03.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3231581 3' similar to SW:GG95_HUMAN Q08379 GOLGIN-95. ; |
| 7004 | 20140 | 33559 | 1.74 | 0.0E+00 | BE550162.1 | EST_HUMAN | 7b49f03.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3231581 3' similar to SW:GG95_HUMAN Q08379 GOLGIN-95. ; |
| 7030 | 20166 | 33588 | 1.66 | 0.0E+00 | BF088376.1 | EST_HUMAN | CM1-HT0877-060900-397-g11 HT0877 Homo sapiens cDNA |
| 7036 | 20172 | 33594 | 1.4 | 0.0E+00 | AA195106.1 | EST_HUMAN | zr34g03.r1 Soares_NhHMPu_S1 Homo sapiens cDNA clone IMAGE:665332 5' |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7044 | 20097 | | 11.81 | 0.0E+00 | 11034810 | NT | Homo sapiens catenin (cadherin-associated protein), delta 2 (neural plakophilin-related arm-repeat protein) (CTNND2), mRNA |
| 7046 | 20099 | 33515 | 1.11 | 0.0E+00 | 11431474 | NT | Homo sapiens sodium channel, nonvoltage-gated 1, beta (Liddle syndrome) (SCNN1B), mRNA |
| 7061 | 20114 | 33529 | 2.69 | 0.0E+00 | BF569905.1 | EST_HUMAN | 602185852F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4310076 5' |
| 7068 | 20121 | 33535 | 0.66 | 0.0E+00 | 4557364 | NT | Homo sapiens Bloom syndrome (BLM) mRNA |
| 7076 | 20129 | | 2.06 | 0.0E+00 | J03069.1 | NT | Human MYCL2 gene, complete cds |
| 7083 | 20177 | 33599 | 2.56 | 0.0E+00 | AF217289.1 | NT | Homo sapiens cadherin 20 (CDH20) mRNA, complete cds |
| 7083 | 20177 | 33600 | 2.56 | 0.0E+00 | AF217289.1 | NT | Homo sapiens cadherin 20 (CDH20) mRNA, complete cds |
| 7084 | 20178 | 33601 | 1.07 | 0.0E+00 | M38113.1 | NT | Human neurofibromatosis type 1 gene, exon x6 |
| 7095 | 18522 | 31515 | 3.59 | 0.0E+00 | 11420775 | NT | Homo sapiens melanoma antigen, family B, 2 (MAGEB2), mRNA |
| 7099 | 18526 | 31518 | 0.7 | 0.0E+00 | BE256708.1 | EST_HUMAN | 601115515F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3356330 5' |
| 7111 | 18537 | 31493 | 0.62 | 0.0E+00 | AI660911.1 | EST_HUMAN | wf21c09.x1 Soares_Dieckgraefe_colon_NHUC Homo sapiens cDNA clone IMAGE:2351248 3' similar to gb:M74297 HOMEOBOX PROTEIN HOX-A4 (HUMAN);contains PTR5.b1 MER22 MER22 repetitive element ; |
| 7111 | 18537 | 31494 | 0.62 | 0.0E+00 | AI660911.1 | EST_HUMAN | wf21c09.x1 Soares_Dieckgraefe_colon_NHUC Homo sapiens cDNA clone IMAGE:2351248 3' similar to gb:M74297 HOMEOBOX PROTEIN HOX-A4 (HUMAN);contains PTR5.b1 MER22 MER22 repetitive element ; |
| 7120 | 18546 | 31457 | 1.21 | 0.0E+00 | AU118478.1 | EST_HUMAN | AU118478 HEMBA1 Homo sapiens cDNA clone HEMBA1003679 5' |
| 7123 | 18549 | 31461 | 7.52 | 0.0E+00 | BE262941.1 | EST_HUMAN | 601148954F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3501829 5' |
| 7124 | 18550 | 31462 | 2.72 | 0.0E+00 | Z37976.1 | NT | H.sapiens mRNA for latent transforming growth factor-beta binding protein (LTBP-2) |
| 7124 | 18550 | 31463 | 2.72 | 0.0E+00 | Z37976.1 | NT | H.sapiens mRNA for latent transforming growth factor-beta binding protein (LTBP-2) |
| 7125 | 18551 | 31464 | 3.01 | 0.0E+00 | AF257737.1 | NT | Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds |
| 7125 | 18551 | 31465 | 3.01 | 0.0E+00 | AF257737.1 | NT | Homo sapiens ciliary dynein heavy chain 9 (DNAH9) mRNA, complete cds |
| 7132 | 18558 | 31472 | 1.26 | 0.0E+00 | AF310105.1 | NT | Homo sapiens NALP1 mRNA, complete cds |
| 7137 | 20272 | 33711 | 0.61 | 0.0E+00 | BE762770.1 | EST_HUMAN | QV3-NT0022-140600-223-f01 NT0022 Homo sapiens cDNA |
| 7142 | 20277 | 33717 | 2.56 | 0.0E+00 | BF569905.1 | EST_HUMAN | 602185852F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4310076 5' |
| 7144 | 20279 | 33719 | 0.78 | 0.0E+00 | AJ404468.1 | NT | Homo sapiens mRNA for dynein heavy chain (DNAH9 gene) |
| 7144 | 20279 | 33720 | 0.78 | 0.0E+00 | AJ404468.1 | NT | Homo sapiens mRNA for dynein heavy chain (DNAH9 gene) |
| 7148 | 20283 | 33725 | 3.26 | 0.0E+00 | L01978.1 | NT | Human type IV sodium channel alpha polypeptide (SCN4A) gene, exon 19 |
| 7153 | 20287 | 33729 | 0.72 | 0.0E+00 | AW502362.1 | EST_HUMAN | UI-HF-BR0p-aka-d-10-0-UI.r1 NIH_MGC_52 Homo sapiens cDNA clone IMAGE:3076290 5' |
| 7153 | 20287 | 33730 | 0.72 | 0.0E+00 | AW502362.1 | EST_HUMAN | UI-HF-BR0p-aka-d-10-0-UI.r1 NIH_MGC_52 Homo sapiens cDNA clone IMAGE:3076290 5' |
| 7162 | 20295 | 33738 | 0.87 | 0.0E+00 | AL039581.1 | EST_HUMAN | DKFZp434D2211_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434D2211 5' |
| 7162 | 20295 | 33739 | 0.87 | 0.0E+00 | AL039581.1 | EST_HUMAN | DKFZp434D2211_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434D2211 5' |
| 7171 | 20304 | 33747 | 5.81 | 0.0E+00 | BF306996.1 | EST_HUMAN | 601889823F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4123948 5' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7177 | 20309 | 33752 | 2.13 | 0.0E+00 | U41302.1 | NT | Human chromosome 16 creatine transporter (SLC6A8) and (CDM) paralogous genes, complete cds |
| 7219 | 20084 | 33499 | 1.15 | 0.0E+00 | AL049784.1 | NT | Novel human gene mapping to chomosome 13 |
| 7225 | 20089 | 33606 | 0.64 | 0.0E+00 | AW513069.1 | EST_HUMAN | xo40e02.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2706458 3' similar to TR:O94895 O94895 KIAA0803 PROTEIN ; |
| 7257 | 20340 | 33790 | 0.62 | 0.0E+00 | AB026893.1 | NT | Homo sapiens mRNA for vascular cadherin-2, complete cds |
| 7257 | 20340 | 33791 | 0.62 | 0.0E+00 | AB026893.1 | NT | Homo sapiens mRNA for vascular cadherin-2, complete cds |
| 7262 | 20345 | 33797 | 0.84 | 0.0E+00 | AU137738.1 | EST_HUMAN | AU137738 PLACE1 Homo sapiens cDNA clone PLACE1007120 5' |
| 7262 | 20345 | 33798 | 0.84 | 0.0E+00 | AU137738.1 | EST_HUMAN | AU137738 PLACE1 Homo sapiens cDNA clone PLACE1007120 5' |
| 7268 | 20351 | 33804 | 1.16 | 0.0E+00 | AW954806.1 | EST_HUMAN | EST366876 MAGE resequences, MAGC Homo sapiens cDNA |
| 7269 | 20352 | 33805 | 0.72 | 0.0E+00 | BE254103.1 | EST_HUMAN | 601113958F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3354566 5' |
| 7283 | 20366 | 33819 | 1 | 0.0E+00 | L01973.1 | NT | Human type VI sodium channel alpha polypeptide (SCN4A) gene, exon 14 |
| 7291 | 20373 | 33829 | 1.03 | 0.0E+00 | AB007935.1 | NT | Homo sapiens mRNA for KIAA0466 protein, partial cds |
| 7291 | 20373 | 33830 | 1.03 | 0.0E+00 | AB007935.1 | NT | Homo sapiens mRNA for KIAA0466 protein, partial cds |
| 7297 | 20379 | 33837 | 1.47 | 0.0E+00 | AU133213.1 | EST_HUMAN | AU133213 NT2RP4 Homo sapiens cDNA clone NT2RP4001556 5' |
| 7313 | 20395 | 33857 | 1.06 | 0.0E+00 | 11428081 | NT | Homo sapiens membrane protein CH1 (CH1), mRNA |
| 7319 | 20401 |  | 2.82 | 0.0E+00 | AU143706.1 | EST_HUMAN | AU143706 Y79AA1 Homo sapiens cDNA clone Y79AA1002365 5' |
| 7320 | 20402 | 33864 | 0.71 | 0.0E+00 | 4758839 | NT | Homo sapiens netrin 1 (NTN1), mRNA |
| 7329 | 20411 | 33872 | 1.25 | 0.0E+00 | BE891286.1 | EST_HUMAN | 601431819F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3917164 5' |
| 7329 | 20411 | 33873 | 1.25 | 0.0E+00 | BE891286.1 | EST_HUMAN | 601431819F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3917164 5' |
| 7350 | 18569 | 31436 | 2.43 | 0.0E+00 | AF137286.1 | NT | Homo sapiens keratin 12 (KRT12) gene, complete cds |
| 7350 | 18569 | 31437 | 2.43 | 0.0E+00 | AF137286.1 | NT | Homo sapiens keratin 12 (KRT12) gene, complete cds |
| 7361 | 20440 | 33901 | 0.67 | 0.0E+00 | BE747231.1 | EST_HUMAN | 601580948F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3929722 5' |
| 7361 | 20440 | 33902 | 0.67 | 0.0E+00 | BE747231.1 | EST_HUMAN | 601580948F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3929722 5' |
| 7371 | 20450 | 33913 | 4.07 | 0.0E+00 | 11436699 | NT | Homo sapiens vitamin D (1,25- dihydroxyvitamin D3) receptor (VDR), mRNA |
| 7371 | 20450 | 33914 | 4.07 | 0.0E+00 | 11436699 | NT | Homo sapiens vitamin D (1,25- dihydroxyvitamin D3) receptor (VDR), mRNA |
| 7385 | 20463 | 33927 | 0.63 | 0.0E+00 | AF227744.1 | NT | Homo sapiens voltage-dependent calcium channel alpha 1G subunit isoform ae (CACNA1G) mRNA, complete cds |
| 7406 | 20484 | 33952 | 36.37 | 0.0E+00 | AI128344.1 | EST_HUMAN | qc67a07.x1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:1714644 3' similar to SW:ARSD_HUMAN P51689 ARYLSULFATASE D PRECURSOR ;contains element HGR repetitive element ; |
| 7406 | 20484 | 33953 | 36.37 | 0.0E+00 | AI128344.1 | EST_HUMAN | qc67a07.x1 Soares_placenta_8to9weeks_2NbHP8to9W Homo sapiens cDNA clone IMAGE:1714644 3' similar to SW:ARSD_HUMAN P51689 ARYLSULFATASE D PRECURSOR ;contains element HGR repetitive element ; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7408 | 20486 | 33955 | 0.74 | 0.0E+00 | AF227135.1 | NT | Homo sapiens candidate taste receptor T2R9 gene, complete cds |
| 7408 | 20486 | 33956 | 0.74 | 0.0E+00 | AF227135.1 | NT | Homo sapiens candidate taste receptor T2R9 gene, complete cds |
| 7410 | 20488 | 33958 | 5.41 | 0.0E+00 | 11426392 | NT | Homo sapiens myosin, heavy polypeptide 8, skeletal muscle, perinatal (MYH8), mRNA |
| 7410 | 20488 | 33959 | 5.41 | 0.0E+00 | 11426392 | NT | Homo sapiens myosin, heavy polypeptide 8, skeletal muscle, perinatal (MYH8), mRNA |
| 7413 | 20491 |  | 13.11 | 0.0E+00 | BF337375.1 | EST_HUMAN | 602035089F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4182839 5' |
| 7415 | 20493 | 33961 | 3.49 | 0.0E+00 | AA128453.1 | EST_HUMAN | zn60f09.r1 Stratagene muscle 937209 Homo sapiens cDNA clone IMAGE:562601 5' similar to TR:G806562 G806562 NEBULIN. ; |
| 7420 | 20497 | 33967 | 0.77 | 0.0E+00 | AL079497.1 | EST_HUMAN | DKFZp434B0226_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434B0226 5' |
| 7420 | 20497 | 33968 | 0.77 | 0.0E+00 | AL079497.1 | EST_HUMAN | DKFZp434B0226_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434B0226 5' |
| 7431 | 20508 | 33980 | 0.69 | 0.0E+00 | AJ270996.1 | NT | Homo sapiens partial mRNA for LTRPC5 protein (LTRPC5 gene) |
| 7461 | 20536 | 34011 | 1.13 | 0.0E+00 | BE295499.1 | EST_HUMAN | 601174576F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3529794 5' |
| 7463 | 20538 | 34012 | 0.91 | 0.0E+00 | 11427965 | NT | Homo sapiens hypothetical protein (FLJ20261), mRNA |
| 7466 | 20541 |  | 1.33 | 0.0E+00 | AU118607.1 | EST_HUMAN | AU118607 HEMBA1 Homo sapiens cDNA clone HEMBA1003969 5' |
| 7467 | 20542 | 34015 | 1.71 | 0.0E+00 | AF005213.1 | NT | Homo sapiens ankyrin 1 (ANK1) mRNA, complete cds |
| 7467 | 20542 | 34016 | 1.71 | 0.0E+00 | AF005213.1 | NT | Homo sapiens ankyrin 1 (ANK1) mRNA, complete cds |
| 7479 | 20554 | 34026 | 0.83 | 0.0E+00 | AF245505.1 | NT | Homo sapiens adlican mRNA, complete cds |
| 7487 | 20562 | 34031 | 6.47 | 0.0E+00 | X70172.1 | NT | H.sapiens DNA for ZNGP2 pseudogene, exon 4 |
| 7489 | 20564 | 34033 | 5.81 | 0.0E+00 | U45448.1 | NT | Human P2x1 receptor mRNA, complete cds |
| 7489 | 20564 | 34034 | 5.81 | 0.0E+00 | U45448.1 | NT | Human P2x1 receptor mRNA, complete cds |
| 7502 | 20577 | 34049 | 0.89 | 0.0E+00 | AW956503.1 | EST_HUMAN | EST368573 MAGE resequences, MAGD Homo sapiens cDNA |
| 7504 | 20579 | 34051 | 2.31 | 0.0E+00 | AW950516.1 | EST_HUMAN | EST362586 MAGE resequences, MAGA Homo sapiens cDNA |
| 7531 | 20604 | 34078 | 1.03 | 0.0E+00 | AF001543.1 | EST_HUMAN | AF001543 Human cDNA (Chandrasekharappa,S.C.) Homo sapiens cDNA clone kappa_200 |
| 7531 | 20604 | 34079 | 1.03 | 0.0E+00 | AF001543.1 | EST_HUMAN | AF001543 Human cDNA (Chandrasekharappa,S.C.) Homo sapiens cDNA clone kappa_200 |
| 7531 | 20604 | 34080 | 1.03 | 0.0E+00 | AF001543.1 | EST_HUMAN | AF001543 Human cDNA (Chandrasekharappa,S.C.) Homo sapiens cDNA clone kappa_200 |
| 7552 | 20624 |  | 0.58 | 0.0E+00 | M90354.1 | NT | Human BTF3 protein homologue gene, complete cds |
| 7553 | 20625 | 34101 | 0.8 | 0.0E+00 | BE408293.1 | EST_HUMAN | 601302679F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3637434 5' |
| 7580 | 20652 |  | 1.09 | 0.0E+00 | R87430.1 | EST_HUMAN | ym88h10.r1 Soares adult brain N2b4HB55Y Homo sapiens cDNA clone IMAGE:166051 5' |
| 7581 | 20653 | 34129 | 1.81 | 0.0E+00 | AW239326.1 | EST_HUMAN | xb39a05.y1 NCI_CGAP_Lu31 Homo sapiens cDNA clone IMAGE:2578640 5' similar to TR:Q08050 Q08050 HNF3/FH TRANSCRIPTION FACTOR GENESIS ; |
| 7600 | 20670 |  | 1.5 | 0.0E+00 | AU117553.1 | EST_HUMAN | AU117553 HEMBA1 Homo sapiens cDNA clone HEMBA1001661 5' |
| 7602 | 20672 | 34146 | 3.8 | 0.0E+00 | 11427135 | NT | Homo sapiens glucagon-like peptide 2 receptor (GLP2R), mRNA |
| 7622 | 20692 | 34168 | 0.62 | 0.0E+00 | AA211663.1 | EST_HUMAN | zn56f02.r1 Stratagene muscle 937209 Homo sapiens cDNA clone IMAGE:562203 5' similar to gb:X03740 MYOSIN HEAVY CHAIN, SKELETAL MUSCLE (HUMAN); |
| 7629 | 20698 | 34174 | 0.63 | 0.0E+00 | BF229235.1 | EST_HUMAN | MR0-AN0083-270900-004-f07 AN0083 Homo sapiens cDNA |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7634 | 20703 | 34182 | 0.67 | 0.0E+00 | AW405627.1 | EST_HUMAN | UI-HF-BL0-abs-d-07-0-UI.r1 NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3057469 5' |
| 7641 | 20710 | 34189 | 0.8 | 0.0E+00 | L32832.1 | NT | Homo sapiens zinc finger homeodomain protein (ATBF1-A) mRNA, complete cds |
| 7667 | 20733 | 34209 | 0.9 | 0.0E+00 | BF306996.1 | EST_HUMAN | 601889823F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4123948 5' |
| 7667 | 20733 | 34210 | 0.9 | 0.0E+00 | BF306996.1 | EST_HUMAN | 601889823F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4123948 5' |
| 7675 | 20740 | 34220 | 1.09 | 0.0E+00 | AU118767.1 | EST_HUMAN | AU118767 HEMBA1 Homo sapiens cDNA clone HEMBA1004314 5' |
| 7733 | 20794 | 34281 | 4.41 | 0.0E+00 | AI752561.1 | EST_HUMAN | cn17d05.x1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn17d05 random |
| 7733 | 20794 | 34282 | 4.41 | 0.0E+00 | AI752561.1 | EST_HUMAN | cn17d05.x1 Normal Human Trabecular Bone Cells Homo sapiens cDNA clone NHTBC_cn17d05 random |
| 7796 | 20852 | 34344 | 0.6 | 0.0E+00 | AL046347.2 | EST_HUMAN | DKFZp434J087_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434J087 5' |
| 7813 | 20868 | 34363 | 1.79 | 0.0E+00 | AF064205.1 | NT | Homo sapiens dynactin 1 (DCTN1) gene, alternatively spliced products, exons 7 through 32 and complete cds |
| 7813 | 20868 | 34364 | 1.79 | 0.0E+00 | AF064205.1 | NT | Homo sapiens dynactin 1 (DCTN1) gene, alternatively spliced products, exons 7 through 32 and complete cds |
| 7821 | 20876 | 34375 | 1.34 | 0.0E+00 | U74315.1 | EST_HUMAN | HSU74315 Human chromosome 14 Homo sapiens cDNA clone 1-4 |
| 7835 | 20890 | 34392 | 1 | 0.0E+00 | 11417342 | NT | Homo sapiens sema domain, seven thrombospondin repeats (type 1 and type 1-like), transmembrane domain (TM) and short cytoplasmic domain, (semaphorin) 5A (SEMA5A), mRNA |
| 7863 | 20917 | 34422 | 0.7 | 0.0E+00 | AI825504.1 | EST_HUMAN | wb17g05.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2305976 3' similar to TR:O75363 O75363 AIBC1. ; |
| 7863 | 20917 | 34423 | 0.7 | 0.0E+00 | AI825504.1 | EST_HUMAN | wb17g05.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2305976 3' similar to TR:O75363 O75363 AIBC1. ; |
| 7871 | 20925 | 34432 | 1.84 | 0.0E+00 | 6912735 | NT | Homo sapiens transient receptor potential channel 5 (TRPC5), mRNA |
| 7877 | 20929 | 34435 | 0.88 | 0.0E+00 | N76126.1 | EST_HUMAN | za86e05.s1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:299456 3' |
| 7881 | 20933 | 34438 | 6.1 | 0.0E+00 | BF217905.1 | EST_HUMAN | 601885465F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4103729 5' |
| 7886 | 20938 | 34444 | 0.62 | 0.0E+00 | BF569862.1 | EST_HUMAN | 602185808F1 NIH_MGC_45 Homo sapiens cDNA clone IMAGE:4310256 5' |
| 7891 | 20943 | 34449 | 3.52 | 0.0E+00 | AU129622.1 | EST_HUMAN | AU129622 NT2RP2 Homo sapiens cDNA clone NT2RP2005913 5' |
| 7911 | 25855 | 34469 | 0.95 | 0.0E+00 | AW069274.1 | EST_HUMAN | cr42e09.x1 Jia bone marrow stroma Homo sapiens cDNA clone HBMSC_cr42e09 3' |
| 7911 | 25855 | 34470 | 0.95 | 0.0E+00 | AW069274.1 | EST_HUMAN | cr42e09.x1 Jia bone marrow stroma Homo sapiens cDNA clone HBMSC_cr42e09 3' |
| 7915 | 20966 | 34472 | 6.67 | 0.0E+00 | 4501848 | NT | Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA |
| 7922 | 20973 | 34479 | 0.92 | 0.0E+00 | AV758467.1 | EST_HUMAN | AV758467 BM Homo sapiens cDNA clone BMFBGG05 5' |
| 7924 | 20974 | 34480 | 5.78 | 0.0E+00 | BE739870.1 | EST_HUMAN | 601593156F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3947365 5' |
| 7924 | 20974 | 34481 | 5.78 | 0.0E+00 | BE739870.1 | EST_HUMAN | 601593156F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3947365 5' |
| 7925 | 20975 | 34482 | 0.76 | 0.0E+00 | 6912461 | NT | Homo sapiens atrophin-1 interacting protein 1; activin receptor interacting protein 1 (KIAA0705), mRNA |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 7925 | 20975 | 34483 | 0.76 | 0.0E+00 | 6912461 | NT | Homo sapiens atrophin-1 interacting protein 1; activin receptor interacting protein 1 (KIAA0705), mRNA |
| 7926 | 20976 | 34484 | 1.05 | 0.0E+00 | AU120424.1 | EST_HUMAN | AU120424 HEMBB1 Homo sapiens cDNA clone HEMBB1000655 5' |
| 7926 | 20976 | 34485 | 1.05 | 0.0E+00 | AU120424.1 | EST_HUMAN | AU120424 HEMBB1 Homo sapiens cDNA clone HEMBB1000655 5' |
| 7948 | 20998 | 34508 | 12.57 | 0.0E+00 | BF590267.1 | EST_HUMAN | nab22c04.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3263214 3' similar to contains element TAR1 repetitive element ; |
| 7959 | 21009 | 34519 | 1.86 | 0.0E+00 | BE787610.1 | EST_HUMAN | 601481713F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3884258 5' |
| 7959 | 21009 | 34520 | 1.86 | 0.0E+00 | BE787610.1 | EST_HUMAN | 601481713F1 NIH_MGC_68 Homo sapiens cDNA clone IMAGE:3884258 5' |
| 7998 | 21048 | 34561 | 0.63 | 0.0E+00 | Y16795.1 | NT | Homo sapiens psihHaA pseudogene |
| 7999 | 21049 | 34562 | 3.86 | 0.0E+00 | AI346148.1 | EST_HUMAN | qp43f05.x1 NCI_CGAP_Co8 Homo sapiens cDNA clone IMAGE:1925793 3' similar to SW:EVX1_HUMAN P49640 HOMEOBOX EVEN-SKIPPED HOMOLOG PROTEIN 1 ; |
| 8001 | 21051 | 34564 | 0.66 | 0.0E+00 | W52673.1 | EST_HUMAN | zc90f10.r1 Pancreatic Islet Homo sapiens cDNA clone IMAGE:338443 5' |
| 8002 | 21052 | 34565 | 0.58 | 0.0E+00 | 11425128 | NT | Homo sapiens similar to ER to nucleus signalling 1 (H. sapiens) (LOC63433), mRNA |
| 8003 | 21053 | 34566 | 0.59 | 0.0E+00 | AU117333.1 | EST_HUMAN | AU117333 HEMBA1 Homo sapiens cDNA clone HEMBA1001175 5' |
| 8004 | 21054 |  | 0.57 | 0.0E+00 | BE613963.1 | EST_HUMAN | 601504084F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3905733 5' |
| 8018 | 21069 | 34580 | 0.73 | 0.0E+00 | 6995995 | NT | Homo sapiens cystic fibrosis transmembrane conductance regulator, ATP-binding cassette (sub-family C, member 7) (CFTR), mRNA |
| 8018 | 21069 | 34581 | 0.73 | 0.0E+00 | 6995995 | NT | Homo sapiens cystic fibrosis transmembrane conductance regulator, ATP-binding cassette (sub-family C, member 7) (CFTR), mRNA |
| 8037 | 21120 | 34640 | 0.49 | 0.0E+00 | AU133187.1 | EST_HUMAN | AU133187 NT2RP4 Homo sapiens cDNA clone NT2RP4001507 5' |
| 8083 | 21165 |  | 0.69 | 0.0E+00 | BF217200.1 | EST_HUMAN | 601885317F1 NIH_MGC_57 Homo sapiens cDNA clone IMAGE:4103693 5' |
| 8096 | 21178 | 34695 | 0.61 | 0.0E+00 | BE313013.1 | EST_HUMAN | 601150347F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3503050 5' |
| 8108 | 21190 | 34710 | 1.36 | 0.0E+00 | AA149791.1 | EST_HUMAN | zo01c06.r1 Stratagene colon (#937204) Homo sapiens cDNA clone IMAGE:566410 5' |
| 8121 | 21203 | 34724 | 0.72 | 0.0E+00 | BF026628.1 | EST_HUMAN | 601672310F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3955131 5' |
| 8135 | 21217 | 34738 | 0.55 | 0.0E+00 | AA017021.1 | EST_HUMAN | ze33h08.r1 Soares retina N2b4HR Homo sapiens cDNA clone IMAGE:360831 5' |
| 8163 | 21235 | 34756 | 2.06 | 0.0E+00 | BE736046.1 | EST_HUMAN | 601305658F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3639903 5' |
| 8170 | 21252 | 34772 | 3.19 | 0.0E+00 | M34872.1 | NT | Human amyloid-beta protein (APP) gene, exon 11 |
| 8170 | 21252 | 34773 | 3.19 | 0.0E+00 | M34872.1 | NT | Human amyloid-beta protein (APP) gene, exon 11 |
| 8200 | 21282 | 34804 | 0.56 | 0.0E+00 | AW674581.1 | EST_HUMAN | bb34d02.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2985123 5' similar to TR:O64652 O64652 F17K2.26 PROTEIN. ; |
| 8200 | 21282 | 34805 | 0.56 | 0.0E+00 | AW674581.1 | EST_HUMAN | bb34d02.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2985123 5' similar to TR:O64652 O64652 F17K2.26 PROTEIN. ; |
| 8207 | 21289 | 34811 | 2.07 | 0.0E+00 | AA397551.1 | EST_HUMAN | zt81b04.r1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:728719 5' similar to TR:G300482 G300482 POL=REVERSE TRANSCRIPTASE HOMOLOG {RETROVIRAL ELEMENT} ; |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8209 | 21291 | 34812 | 0.85 | 0.0E+00 | AW387131.1 | EST_HUMAN | MR0-ST0031-061099-003-a11 ST0031 Homo sapiens cDNA |
| 8212 | 21294 | | 0.64 | 0.0E+00 | AB020691.1 | NT | Homo sapiens mRNA for KIAA0884 protein, partial cds |
| 8213 | 21295 | 34814 | 6.15 | 0.0E+00 | AU142402.1 | EST_HUMAN | AU142402 Y79AA1 Homo sapiens cDNA clone Y79AA1000277 5' |
| 8216 | 21298 | 34818 | 0.86 | 0.0E+00 | BE388421.1 | EST_HUMAN | 601285550F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3607237 5' |
| 8216 | 21298 | 34819 | 0.86 | 0.0E+00 | BE388421.1 | EST_HUMAN | 601285550F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3607237 5' |
| 8231 | 21313 | 34833 | 0.59 | 0.0E+00 | 7657276 | NT | Homo sapiens killer cell immunoglobulin-like receptor, two domains, short cytoplasmic tail, 1 (KIR2DS1), mRNA |
| 8233 | 21315 | 34835 | 0.84 | 0.0E+00 | W95278.1 | EST_HUMAN | ze05d01.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:358081 5' |
| 8233 | 21315 | 34836 | 0.84 | 0.0E+00 | W95278.1 | EST_HUMAN | ze05d01.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:358081 5' |
| 8235 | 21317 | | 4.11 | 0.0E+00 | BF673098.1 | EST_HUMAN | 602153008F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4294128 5' |
| 8239 | 21321 | | 0.93 | 0.0E+00 | AU134114.1 | EST_HUMAN | AU134114 OVARC1 Homo sapiens cDNA clone OVARC1001296 5' |
| 8253 | 21335 | 34853 | 0.95 | 0.0E+00 | BF626534.1 | EST_HUMAN | 602069632F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4212727 5' |
| 8253 | 21336 | 34854 | 0.95 | 0.0E+00 | BF525534.1 | EST_HUMAN | 602069632F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4212727 5' |
| 8285 | 21367 | 34886 | 1.35 | 0.0E+00 | AL120124.1 | EST_HUMAN | DKFZp761P092_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761P092 5' |
| 8285 | 21367 | 34887 | 1.35 | 0.0E+00 | AL120124.1 | EST_HUMAN | DKFZp761P092_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761P092 5' |
| 8328 | 21410 | | 1.16 | 0.0E+00 | BE877693.1 | EST_HUMAN | 601485254F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3887773 5' |
| 8351 | 21432 | 34956 | 1.27 | 0.0E+00 | AW500549.1 | EST_HUMAN | UI-HF-BN0-akj-f-01-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077496 5' |
| 8359 | 21440 | 34962 | 14.12 | 0.0E+00 | AW157233.1 | EST_HUMAN | au93b08.x1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2783799 3' similar to TR:O60463 O60463 TYPE-2 PHOSPHATIDIC ACID PHOSPHOHYDROLASE. [1] ; |
| 8376 | 21457 | 34981 | 0.68 | 0.0E+00 | AW072395.1 | EST_HUMAN | xa07d12.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2567639 3' similar to contains element OFR repetitive element ; |
| 8394 | 21475 | 35002 | 1.11 | 0.0E+00 | 11421722 | NT | Homo sapiens centrosomal protein 2 (CEP2), mRNA |
| 8397 | 21478 | 35005 | 0.57 | 0.0E+00 | W01616.1 | EST_HUMAN | za36d05.r1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:294633 5' |
| 8399 | 21480 | 35007 | 1.3 | 0.0E+00 | BE745597.1 | EST_HUMAN | 601578195F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3926998 5' |
| 8399 | 21480 | 35008 | 1.3 | 0.0E+00 | BE745597.1 | EST_HUMAN | 601578195F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3926998 5' |
| 8411 | 21492 | 35022 | 1.13 | 0.0E+00 | AJ271735.1 | NT | Homo sapiens Xq pseudoautosomal region; segment 1/2 |
| 8431 | 21512 | 35043 | 0.46 | 0.0E+00 | D45032.1 | NT | Human DNA for ceruloplasmin, exon 5 |
| 8450 | 21531 | 35060 | 0.53 | 0.0E+00 | AI367350.1 | EST_HUMAN | qv95c12.x1 NCI_CGAP_Ut2 Homo sapiens cDNA clone IMAGE:1989334 3' similar to TR:Q14673 Q14673 KIAA0164 PROTEIN. ; |
| 8462 | 21543 | 35073 | 2.23 | 0.0E+00 | BE674157.1 | EST_HUMAN | 7d76a04.x1 NCI_CGAP_Lu24 Homo sapiens cDNA clone IMAGE:3278862 3' similar to TR:O95793 O95793 STAUFEN PROTEIN. ; |
| 8464 | 21545 | 35075 | 1.96 | 0.0E+00 | AI885671.1 | EST_HUMAN | wi60b10.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2429275 3' similar to SW:COGT_HUMAN P50281 MATRIX METALLOPROTEINASE-14 PRECURSOR ; |
| 8477 | 21558 | 35091 | 1.47 | 0.0E+00 | BE563650.1 | EST_HUMAN | 601334790F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3688655 5' |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8477 | 21558 | 35092 | 1.47 | 0.0E+00 | BE563650.1 | EST_HUMAN | 601334790F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3688655 5' |
| 8485 | 21566 | 35102 | 1.72 | 0.0E+00 | 11427235 | NT | Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA |
| 8485 | 21566 | 35103 | 1.72 | 0.0E+00 | 11427235 | NT | Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA |
| 8487 | 21568 | 35105 | 0.84 | 0.0E+00 | AA403192.1 | EST_HUMAN | zv66f02.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:758619 5' similar to TR:G1304132 G1304132 TPRD. ; |
| 8487 | 21568 | 35106 | 0.84 | 0.0E+00 | AA403192.1 | EST_HUMAN | zv66f02.r1 Soares_total_fetus_Nb2HF8_9w Homo sapiens cDNA clone IMAGE:758619 5' similar to TR:G1304132 G1304132 TPRD. ; |
| 8528 | 21609 |  | 3.61 | 0.0E+00 | AA398511.1 | EST_HUMAN | zt73a08.s1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:727958 3' similar to gb:S85655 PROHIBITIN (HUMAN); |
| 8537 | 21618 | 35155 | 0.5 | 0.0E+00 | BE837593.1 | EST_HUMAN | RC2-FN0094-120600-013-h07 FN0094 Homo sapiens cDNA |
| 8538 | 21619 | 35156 | 1.34 | 0.0E+00 | AW364874.1 | EST_HUMAN | QV3-DT0045-221299-046-c07 DT0045 Homo sapiens cDNA |
| 8538 | 21619 | 35157 | 1.34 | 0.0E+00 | AW364874.1 | EST_HUMAN | QV3-DT0045-221299-046-c07 DT0045 Homo sapiens cDNA |
| 8557 | 21638 | 35176 | 1.24 | 0.0E+00 | BE612586.1 | EST_HUMAN | 601452412F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3856179 5' |
| 8557 | 21638 | 35177 | 1.24 | 0.0E+00 | BE612586.1 | EST_HUMAN | 601452412F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3856179 5' |
| 8572 | 21653 | 35194 | 1.16 | 0.0E+00 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 8572 | 21653 | 35195 | 1.16 | 0.0E+00 | AL163209.2 | NT | Homo sapiens chromosome 21 segment HS21C009 |
| 8581 | 21662 | 35202 | 0.93 | 0.0E+00 | AI884477.1 | EST_HUMAN | wm33a11.x1 NCI_CGAP_Ut4 Homo sapiens cDNA clone IMAGE:2437724 3' similar to TR:O75457 O75457 CYTOSOLIC PHOSPHOLIPASE A2-GAMMA. ; |
| 8588 | 21669 | 35208 | 0.71 | 0.0E+00 | AA502294.1 | EST_HUMAN | ne25d10.s1 NCI_CGAP_Co3 Homo sapiens cDNA clone IMAGE:882259 3' similar to TR:G1136434 G1136434 KIAA0187 PROTEIN. ; |
| 8593 | 21674 |  | 0.68 | 0.0E+00 | 11416799 | NT | Homo sapiens protocadherin beta 3 (PCDHB3), mRNA |
| 8601 | 21682 | 35220 | 0.52 | 0.0E+00 | AI580780.1 | EST_HUMAN | ta04f11.x1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:2043117 3' |
| 8604 | 21685 |  | 2.08 | 0.0E+00 | BE890797.1 | EST_HUMAN | 601431238F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3916569 5' |
| 8630 | 21710 | 35246 | 0.61 | 0.0E+00 | AW245765.1 | EST_HUMAN | 2822701.5prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2822701 5' |
| 8630 | 21710 | 35247 | 0.61 | 0.0E+00 | AW245765.1 | EST_HUMAN | 2822701.5prime NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2822701 5' |
| 8631 | 21711 | 35248 | 2.13 | 0.0E+00 | 4758695 | NT | Homo sapiens mitogen-activated protein kinase kinase kinase 13 (MAP3K13), mRNA |
| 8631 | 21711 | 35249 | 2.13 | 0.0E+00 | 4758695 | NT | Homo sapiens mitogen-activated protein kinase kinase kinase 13 (MAP3K13), mRNA |
| 8635 | 21715 | 35252 | 0.61 | 0.0E+00 | U88084.1 | NT | Human zinc finger protein (ZNF165), gene, exons 2 and 3 |
| 8635 | 21715 | 35253 | 0.61 | 0.0E+00 | U88084.1 | NT | Human zinc finger protein (ZNF165), gene, exons 2 and 3 |
| 8697 | 21777 | 35309 | 0.48 | 0.0E+00 | U84744.1 | NT | Human Chediak-Higashi syndrome protein short isoform (LYST) mRNA, complete cds |
| 8704 | 21784 | 35317 | 0.7 | 0.0E+00 | AJ251760.1 | NT | Homo sapiens NESP55, GNAS1 antisense (partial) and XLalphas (partial) genes |
| 8709 | 21789 | 35323 | 2.81 | 0.0E+00 | X98922.1 | NT | H.sapiens mRNA for gamma-glutamyltransferase |
| 8709 | 21789 | 35324 | 2.81 | 0.0E+00 | X98922.1 | NT | H.sapiens mRNA for gamma-glutamyltransferase |
| 8709 | 21789 | 35325 | 2.81 | 0.0E+00 | X98922.1 | NT | H.sapiens mRNA for gamma-glutamyltransferase |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 8723 | 21803 | 35339 | 0.76 | 0.0E+00 | U82979.1 | NT | Human immunoglobulin-like transcript-3 mRNA, complete cds |
| 8765 | 21844 | 35385 | 0.81 | 0.0E+00 | AF022655.1 | NT | Homo sapiens cep250 centrosome associated protein mRNA, complete cds |
| 8765 | 21844 | 35386 | 0.81 | 0.0E+00 | AF022655.1 | NT | Homo sapiens cep250 centrosome associated protein mRNA, complete cds |
| 8768 | 21847 | 35388 | 0.67 | 0.0E+00 | AU131671.1 | EST_HUMAN | AU131671 NT2RP3 Homo sapiens cDNA clone NT2RP3003016 5' |
| 8784 | 21863 | 35406 | 0.64 | 0.0E+00 | 11426572 | NT | Homo sapiens immunoglobulin superfamily, member 2 (IGSF2), mRNA |
| 8788 | 21867 | | 1.35 | 0.0E+00 | AW513513.1 | EST_HUMAN | xo46e01.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2707032 3' similar to gb:M14123_cds4 RETROVIRUS-RELATED POL POLYPROTEIN (HUMAN); |
| 8790 | 21869 | | 0.54 | 0.0E+00 | BE783232.1 | EST_HUMAN | 601472166F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3874912 5' |
| 8791 | 21870 | 35409 | 1.62 | 0.0E+00 | D52650.1 | EST_HUMAN | HUM084C02B Clontech human fetal brain polyA+ mRNA (#6535) Homo sapiens cDNA clone GEN-084C02 5' |
| 8823 | 21902 | 35442 | 4.15 | 0.0E+00 | BE378495.1 | EST_HUMAN | 601236488F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3608709 5' |
| 8829 | 21908 | 35446 | 2.15 | 0.0E+00 | AA410645.1 | EST_HUMAN | zt32e04.r1 Soares ovary tumor NbHOT Homo sapiens cDNA clone IMAGE:724062 5' |
| 8831 | 21910 | | 1.35 | 0.0E+00 | BF313946.1 | EST_HUMAN | 601900571F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4129744 5' |
| 8838 | 21917 | 35455 | 0.54 | 0.0E+00 | 11424387 | NT | Homo sapiens leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 3 (LILRB3), mRNA |
| 8843 | 21922 | 35460 | 1.41 | 0.0E+00 | AW139673.1 | EST_HUMAN | UI-H-BI1-adr-e-12-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2717687 3' |
| 8843 | 21922 | 35461 | 1.41 | 0.0E+00 | AW139673.1 | EST_HUMAN | UI-H-BI1-adr-e-12-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2717687 3' |
| 8879 | 21958 | 35493 | 2.16 | 0.0E+00 | BE260272.1 | EST_HUMAN | 601150051F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3502836 5' |
| 8884 | 21963 | 35497 | 2.91 | 0.0E+00 | BF700165.1 | EST_HUMAN | 602127664F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4284542 5' |
| 8884 | 21963 | 35498 | 2.91 | 0.0E+00 | BF700165.1 | EST_HUMAN | 602127664F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4284542 5' |
| 8884 | 21963 | 35499 | 2.91 | 0.0E+00 | BF700165.1 | EST_HUMAN | 602127664F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:4284542 5' |
| 8923 | 22002 | 35541 | 0.84 | 0.0E+00 | AL449770.1 | EST_HUMAN | AL449770 Homo sapiens fetal brain (Stavrides GS) Homo sapiens cDNA |
| 8930 | 22009 | 35547 | 3.69 | 0.0E+00 | AA962527.1 | EST_HUMAN | or80g02.s1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1602194 3' similar to gb:M36072 60S RIBOSOMAL PROTEIN L7A (HUMAN); |
| 8936 | 22015 | 35555 | 3.41 | 0.0E+00 | 10947037 | NT | Homo sapiens ankyrin 1, erythrocytic (ANK1), transcript variant 1, mRNA |
| 8936 | 22015 | 35556 | 3.41 | 0.0E+00 | 10947037 | NT | Homo sapiens ankyrin 1, erythrocytic (ANK1), transcript variant 1, mRNA |
| 8961 | 22040 | 35583 | 1.65 | 0.0E+00 | Y11107.3 | NT | Homo sapiens ITGB4 gene for integrin beta 4 subunit, exons 3-41 |
| 8963 | 22042 | 35585 | 1.09 | 0.0E+00 | BE278917.1 | EST_HUMAN | 601156330F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3139734 5' |
| 8973 | 22052 | | 2.86 | 0.0E+00 | AV718377.1 | EST_HUMAN | AV718377 FHTB Homo sapiens cDNA clone FHTBAAF11 5' |
| 8980 | 22059 | 35600 | 3.12 | 0.0E+00 | AW337277.1 | EST_HUMAN | xw73c07.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2833644 3' similar to gb:X53587 INTEGRIN BETA-4 SUBUNIT PRECURSOR (HUMAN); |
| 8986 | 22065 | 35605 | 1.59 | 0.0E+00 | AU124051.1 | EST_HUMAN | AU124051 NT2RM2 Homo sapiens cDNA clone NT2RM2001575 5' |
| 9063 | 22142 | 35687 | 0.98 | 0.0E+00 | AU140704.1 | EST_HUMAN | AU140704 PLACE4 Homo sapiens cDNA clone PLACE4000089 5' |
| 9073 | 22152 | 35696 | 0.64 | 0.0E+00 | AB007923.1 | NT | Homo sapiens mRNA for KIAA0454 protein, partial cds |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9078 | 22157 | 35700 | 0.68 | 0.0E+00 | R17132.1 | EST_HUMAN | yg09e09.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:31674 5' |
| 9078 | 22157 | 35701 | 0.68 | 0.0E+00 | R17132.1 | EST_HUMAN | yg09e09.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:31674 5' |
| 9082 | 22161 | 35703 | 4.78 | 0.0E+00 | AW592233.1 | EST_HUMAN | hf48a09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2935096 3' |
| 9082 | 22161 | 35704 | 4.78 | 0.0E+00 | AW592233.1 | EST_HUMAN | hf48a09.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2935096 3' |
| 9129 | 22208 | 35751 | 0.93 | 0.0E+00 | AV714764.1 | EST_HUMAN | AV714764 DCB Homo sapiens cDNA clone DCBAUA06 5' |
| 9145 | 22224 | 35766 | 3.17 | 0.0E+00 | AL040428.1 | EST_HUMAN | DKFZp434C1814_s1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434C1814 3' |
| 9145 | 22224 | 35767 | 3.17 | 0.0E+00 | AL040428.1 | EST_HUMAN | DKFZp434C1814_s1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434C1814 3' |
| 9151 | 22229 | 35773 | 1.32 | 0.0E+00 | AF133901.1 | NT | Homo sapiens killer inhibitory receptor 2-2-1 (KIR221) and killer inhibitory receptor 2-2-2 (KIR222) genes, partial cds |
| 9153 | 22231 | 35776 | 2.12 | 0.0E+00 | AB040945.1 | NT | Homo sapiens mRNA for KIAA1512 protein, partial cds |
| 9161 | 22239 |  | 0.61 | 0.0E+00 | BF058289.1 | EST_HUMAN | 7k29b03.x1 NCI_CGAP_Ov18 Homo sapiens cDNA clone IMAGE:3476692 3' similar to TR:O36448 O36448 S GAG. ; |
| 9191 | 22269 | 35808 | 2.79 | 0.0E+00 | 11422867 | NT | Homo sapiens tumor protein p73 (TP73), mRNA |
| 9201 | 22279 | 35818 | 1.59 | 0.0E+00 | K01241.1 | NT | Human Ig rearranged H-chain epsilon-3 pseudogene, constant region |
| 9209 | 22287 | 35828 | 5.28 | 0.0E+00 | AB020630.1 | NT | Homo sapiens mRNA for KIAA0823 protein, partial cds |
| 9209 | 22287 | 35829 | 5.28 | 0.0E+00 | AB020630.1 | NT | Homo sapiens mRNA for KIAA0823 protein, partial cds |
| 9214 | 22292 | 35835 | 1.84 | 0.0E+00 | AV660739.1 | EST_HUMAN | AV660739 GLC Homo sapiens cDNA clone GLCGKG12 3' |
| 9220 | 22298 | 35841 | 3.41 | 0.0E+00 | 7706638 | NT | Homo sapiens polycystin-L (PKDL), mRNA |
| 9225 | 22303 | 35846 | 0.6 | 0.0E+00 | BE793326.1 | EST_HUMAN | 601588304F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3942553 5' |
| 9246 | 22323 | 35867 | 4.22 | 0.0E+00 | BE315402.1 | EST_HUMAN | 601141119F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3140740 5' |
| 9246 | 22323 | 35868 | 4.22 | 0.0E+00 | BE315402.1 | EST_HUMAN | 601141119F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3140740 5' |
| 9256 | 22333 | 35883 | 0.6 | 0.0E+00 | BE612721.1 | EST_HUMAN | 601452582F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3856100 5' |
| 9256 | 22333 | 35884 | 0.6 | 0.0E+00 | BE612721.1 | EST_HUMAN | 601452582F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3856100 5' |
| 9259 | 22336 |  | 0.54 | 0.0E+00 | M89986.1 | NT | Human polymorphic loci in Xq28 |
| 9261 | 22338 | 35888 | 1.65 | 0.0E+00 | X14766.1 | NT | Human mRNA for GABA-A receptor, alpha 1 subunit |
| 9279 | 22355 | 35905 | 0.53 | 0.0E+00 | AU127096.1 | EST_HUMAN | AU127096 NT2RP2 Homo sapiens cDNA clone NT2RP2000579 5' |
| 9283 | 22359 | 35909 | 0.83 | 0.0E+00 | AI061395.1 | EST_HUMAN | an29e04.x1 Gessler Wilms tumor Homo sapiens cDNA clone IMAGE:1700094 3' |
| 9288 | 22364 | 35913 | 1.96 | 0.0E+00 | AI954607.1 | EST_HUMAN | wq34a12.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2473150 3' similar to SW:MGB3_HUMAN O15480 MELANOMA-ASSOCIATED ANTIGEN B3 ; |
| 9293 | 22369 | 35919 | 5.69 | 0.0E+00 | 9256595 | NT | Homo sapiens protocadherin alpha 8 (PCDHA8), mRNA |
| 9303 | 22379 | 35930 | 2.73 | 0.0E+00 | AW958311.1 | EST_HUMAN | EST370381 MAGE resequences, MAGE Homo sapiens cDNA |
| 9313 | 22389 | 35940 | 1.32 | 0.0E+00 | 9635487 | NT | Human endogenous retrovirus, complete genome |
| 9328 | 22404 | 35956 | 0.84 | 0.0E+00 | AU142662.1 | EST_HUMAN | AU142662 Y79AA1 Homo sapiens cDNA clone Y79AA1000678 5' |
| 9344 | 22420 | 35974 | 1.04 | 0.0E+00 | 11436995 | NT | Homo sapiens MAP-kinase activating death domain (MADD), mRNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9345 | 22421 | | 0.76 | 0.0E+00 | BE410768.1 | EST_HUMAN | 601301676F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3636163 5' |
| 9359 | 22434 | 35993 | 1.32 | 0.0E+00 | BF002024.1 | EST_HUMAN | 7g97h12.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:3314471 3' similar to TR:Q9UH62 Q9UH62 HYPOTHETICAL 42.5 KD PROTEIN. ; |
| 9373 | 22448 | 36009 | 1.62 | 0.0E+00 | AB011150.1 | NT | Homo sapiens mRNA for KIAA0578 protein, partial cds |
| 9374 | 22449 | 36010 | 3.42 | 0.0E+00 | BE794823.1 | EST_HUMAN | 601589294F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943463 5' |
| 9378 | 22453 | 36015 | 0.47 | 0.0E+00 | BE810292.1 | EST_HUMAN | RC3-PT0151-290600-011-c05 PT0151 Homo sapiens cDNA |
| 9378 | 22453 | 36016 | 0.47 | 0.0E+00 | BE810292.1 | EST_HUMAN | RC3-PT0151-290600-011-c05 PT0151 Homo sapiens cDNA |
| 9381 | 22456 | 36019 | 0.97 | 0.0E+00 | AU136229.1 | EST_HUMAN | AU136229 PLACE1 Homo sapiens cDNA clone PLACE1003804 5' |
| 9386 | 22461 | 36024 | 1.19 | 0.0E+00 | BE883843.1 | EST_HUMAN | 601510247F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3911986 5' |
| 9386 | 22461 | 36025 | 1.19 | 0.0E+00 | BE883843.1 | EST_HUMAN | 601510247F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3911986 5' |
| 9403 | 22477 | 36040 | 0.57 | 0.0E+00 | AB011166.1 | NT | Homo sapiens mRNA for KIAA0594 protein, partial cds |
| 9407 | 22481 | 36044 | 1.43 | 0.0E+00 | AA344601.1 | EST_HUMAN | EST50505 Gall bladder I Homo sapiens cDNA 5' end |
| 9407 | 22481 | 36046 | 1.43 | 0.0E+00 | AA344601.1 | EST_HUMAN | EST50505 Gall bladder I Homo sapiens cDNA 5' end |
| 9464 | 22521 | 36083 | 0.96 | 0.0E+00 | AW673469.1 | EST_HUMAN | ba54d08.y3 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2900367 5' similar to TR:O60276 O60276 KIAA0522 PROTEIN ; |
| 9464 | 22521 | 36084 | 0.96 | 0.0E+00 | AW673469.1 | EST_HUMAN | ba54d08.y3 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2900367 5' similar to TR:O60275 O60275 KIAA0522 PROTEIN ; |
| 9498 | 22554 | 36116 | 0.99 | 0.0E+00 | BE207063.1 | EST_HUMAN | ba09f05.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823873 5' similar to gb:L35049 Mus musculus Bcl-xL mRNA, complete cds (MOUSE); |
| 9498 | 22554 | 36117 | 0.99 | 0.0E+00 | BE207063.1 | EST_HUMAN | ba09f05.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823873 5' similar to gb:L35049 Mus musculus Bcl-xL mRNA, complete cds (MOUSE); |
| 9509 | 22775 | 36346 | 1.95 | 0.0E+00 | BF348013.1 | EST_HUMAN | 602023150F1 NCI_CGAP_Brn67 Homo sapiens cDNA clone IMAGE:4158300 5' |
| 9545 | 22610 | 36178 | 3.1 | 0.0E+00 | BE712515.1 | EST_HUMAN | QV2-HT0698-250700-282-b08 HT0698 Homo sapiens cDNA |
| 9577 | 22719 | 36287 | 0.49 | 0.0E+00 | BF034377.1 | EST_HUMAN | 601455116F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3859035 5' |
| 9577 | 22719 | 36288 | 0.49 | 0.0E+00 | BF034377.1 | EST_HUMAN | 601455116F1 NIH_MGC_66 Homo sapiens cDNA clone IMAGE:3859035 5' |
| 9583 | 22725 | 36295 | 0.58 | 0.0E+00 | AI906351.1 | EST_HUMAN | RC-BT108-040399-032 BT108 Homo sapiens cDNA |
| 9586 | 22728 | 36297 | 0.77 | 0.0E+00 | 5803069 | NT | Homo sapiens leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 5 (LILRB5), mRNA |
| 9586 | 22728 | 36298 | 0.77 | 0.0E+00 | 5803069 | NT | Homo sapiens leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 5 (LILRB5), mRNA |
| 9596 | 22651 | 36223 | 0.85 | 0.0E+00 | AL042278.1 | EST_HUMAN | DKFZp434L0120_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434L0120 5' |
| 9631 | 22686 | 36257 | 1.3 | 0.0E+00 | AI088043.1 | EST_HUMAN | ow60h01.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:1651249 3' similar to TR:Q14677 Q14677 KIAA0171 PROTEIN. ; |
| 9638 | 21081 | 34592 | 0.67 | 0.0E+00 | BF309962.1 | EST_HUMAN | 601892245F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4138066 5' |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9640 | 21083 | 34595 | 2.32 | 0.0E+00 | 11560151 | NT | Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA |
| 9640 | 21083 | 34596 | 2.32 | 0.0E+00 | 11560151 | NT | Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA |
| 9642 | 21085 | 34599 | 6.52 | 0.0E+00 | AI290909.1 | EST_HUMAN | qm09a06.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1881298 3' similar to SW:RL2B_HUMAN P29316 60S RIBOSOMAL PROTEIN L23A. ; |
| 9642 | 21085 | 34600 | 6.52 | 0.0E+00 | AI290909.1 | EST_HUMAN | qm09a06.x1 NCI_CGAP_Lu5 Homo sapiens cDNA clone IMAGE:1881298 3' similar to SW:RL2B_HUMAN P29316 60S RIBOSOMAL PROTEIN L23A. ; |
| 9643 | 21086 | 34601 | 2.16 | 0.0E+00 | AW953836.1 | EST_HUMAN | EST366026 MAGE resequences, MAGC Homo sapiens cDNA |
| 9670 | 22632 | 36201 | 3.95 | 0.0E+00 | AF153456.1 | NT | Homo sapiens polycystic kidney disease 2-like protein (PKD2L) gene, exon 8 |
| 9673 | 22635 | 36205 | 0.69 | 0.0E+00 | BE885128.1 | EST_HUMAN | 601510882F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912165 5' |
| 9673 | 22635 | 36206 | 0.69 | 0.0E+00 | BE885128.1 | EST_HUMAN | 601510882F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3912165 5' |
| 9683 | 22732 |  | 5.87 | 0.0E+00 | BE255829.1 | EST_HUMAN | 601109942F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3350722 5' |
| 9686 | 22735 | 36305 | 1.44 | 0.0E+00 | BE781382.1 | EST_HUMAN | 601466828F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3870007 5' |
| 9686 | 22735 | 36306 | 1.44 | 0.0E+00 | BE781382.1 | EST_HUMAN | 601466828F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3870007 5' |
| 9688 | 22737 | 36307 | 5.46 | 0.0E+00 | AW163779.1 | EST_HUMAN | au86c04.y1 Schneider fetal brain 00004 Homo sapiens cDNA clone IMAGE:2783142 5' similar to gb:M36072 60S RIBOSOMAL PROTEIN L7A (HUMAN); |
| 9697 | 22746 | 36315 | 0.58 | 0.0E+00 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 9709 | 22758 | 36329 | 3.41 | 0.0E+00 | BE263191.1 | EST_HUMAN | 601145054F2 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3160477 5' |
| 9727 | 22792 | 36364 | 4.49 | 0.0E+00 | C06158.1 | EST_HUMAN | C06158 Human pancreatic islet Homo sapiens cDNA clone hbc5605 |
| 9727 | 22792 | 36365 | 4.49 | 0.0E+00 | C06158.1 | EST_HUMAN | C06158 Human pancreatic islet Homo sapiens cDNA clone hbc5605 |
| 9729 | 22794 | 36368 | 3.38 | 0.0E+00 | BE746215.1 | EST_HUMAN | 601578683F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3927548 5' |
| 9739 | 22804 | 36378 | 2.03 | 0.0E+00 | 11437282 | NT | Homo sapiens solute carrier family 21 (organic anion transporter), member 9 (SLC21A9), mRNA |
| 9739 | 22804 | 36379 | 2.03 | 0.0E+00 | 11437282 | NT | Homo sapiens solute carrier family 21 (organic anion transporter), member 9 (SLC21A9), mRNA |
| 9739 | 22804 | 36380 | 2.03 | 0.0E+00 | 11437282 | NT | Homo sapiens solute carrier family 21 (organic anion transporter), member 9 (SLC21A9), mRNA |
| 9759 | 22697 | 36265 | 1.91 | 0.0E+00 | BE900549.1 | EST_HUMAN | 601673425F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3956238 5' |
| 9776 | 22816 | 36394 | 1.5 | 0.0E+00 | AV701829.1 | EST_HUMAN | AV701829 ADB Homo sapiens cDNA clone ADBBYH01 5' |
| 9788 | 22828 | 36405 | 2.55 | 0.0E+00 | AF019084.1 | NT | Homo sapiens keratin 2e (KRT2E) gene, complete cds |
| 9788 | 22828 | 36406 | 2.55 | 0.0E+00 | AF019084.1 | NT | Homo sapiens keratin 2e (KRT2E) gene, complete cds |
| 9821 | 22861 | 36442 | 1.13 | 0.0E+00 | BE082977.1 | EST_HUMAN | RC2-BT0642-130300-017-g01 BT0642 Homo sapiens cDNA |
| 9841 | 22881 | 36464 | 1.72 | 0.0E+00 | AW500293.1 | EST_HUMAN | UI-HF-BN0-akg-b-12-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3076943 5' |
| 9841 | 22881 | 36465 | 1.72 | 0.0E+00 | AW500293.1 | EST_HUMAN | UI-HF-BN0-akg-b-12-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3076943 5' |
| 9850 | 22890 | 36470 | 1.87 | 0.0E+00 | AF029308.1 | NT | Homo sapiens chromosome 9 duplication of the T cell receptor beta locus and trypsinogen gene families |
| 9850 | 22890 | 36471 | 1.87 | 0.0E+00 | AF029308.1 | NT | Homo sapiens chromosome 9 duplication of the T cell receptor beta locus and trypsinogen gene families |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 9852 | 22892 | 36472 | 0.52 | 0.0E+00 | BE783272.1 | EST_HUMAN | 601470824F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3874037 5' |
| 9852 | 22892 | 36473 | 0.52 | 0.0E+00 | BE783272.1 | EST_HUMAN | 601470824F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3874037 5' |
| 9861 | 22901 | 36485 | 0.63 | 0.0E+00 | W56629.1 | EST_HUMAN | zd16e11.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:340844 5' |
| 9861 | 22901 | 36486 | 0.63 | 0.0E+00 | W56629.1 | EST_HUMAN | zd16e11.r1 Soares_fetal_heart_NbHH19W Homo sapiens cDNA clone IMAGE:340844 5' |
| 9874 | 22914 | 36499 | 0.46 | 0.0E+00 | AF208054.1 | NT | Homo sapiens non-inhibitory killer-cell Ig-like receptor KIR (KIR2DS5) mRNA, complete cds |
| 9875 | 22915 | 36500 | 1.04 | 0.0E+00 | AB035356.1 | NT | Homo sapiens mRNA for neurexin I-alpha protein, complete cds |
| 9879 | 22919 |  | 0.64 | 0.0E+00 | AI124780.1 | EST_HUMAN | am56a11.x1 Johnston frontal cortex Homo sapiens cDNA clone IMAGE:1539548 3' |
| 9881 | 22921 | 36505 | 3 | 0.0E+00 | AW500526.1 | EST_HUMAN | UI-HF-BN0-akj-c-07-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077364 5' |
| 9925 | 22965 | 36554 | 2.65 | 0.0E+00 | AF009668.1 | NT | Multiple sclerosis associated retrovirus polyprotein (pol) mRNA, partial cds |
| 9953 | 22992 | 36585 | 2.69 | 0.0E+00 | S78466.1 | NT | AIGF=androgen-induced growth factor AIGF [human, placenta, Genomic/mRNA, 498 nt, segment 5 of 5] |
| 9953 | 22992 | 36586 | 2.69 | 0.0E+00 | S78466.1 | NT | AIGF=androgen-induced growth factor AIGF [human, placenta, Genomic/mRNA, 498 nt, segment 5 of 5] |
| 9956 | 22995 | 36591 | 2.72 | 0.0E+00 | BE563320.1 | EST_HUMAN | 601334603F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3688680 5' |
| 9976 | 23015 | 36608 | 1.26 | 0.0E+00 | AW363135.1 | EST_HUMAN | CM2-CT0311-301199-043-h11 CT0311 Homo sapiens cDNA |
| 9997 | 23035 | 36627 | 0.66 | 0.0E+00 | 11436432 | NT | Homo sapiens multimerin (MMRN), mRNA |
| 9998 | 23036 | 36628 | 0.52 | 0.0E+00 | 11424387 | NT | Homo sapiens leukocyte immunoglobulin-like receptor, subfamily B (with TM and ITIM domains), member 3 (LILRB3), mRNA |
| 10007 | 23045 | 36638 | 0.91 | 0.0E+00 | BE206710.1 | EST_HUMAN | bb26c01.x1 NIH_MGC_5 Homo sapiens cDNA clone IMAGE:2964000 3' |
| 10024 | 23062 | 36658 | 4.49 | 0.0E+00 | AU132349.1 | EST_HUMAN | AU132349 NT2RP3 Homo sapiens cDNA clone NT2RP3004260 5' |
| 10024 | 23062 | 36659 | 4.49 | 0.0E+00 | AU132349.1 | EST_HUMAN | AU132349 NT2RP3 Homo sapiens cDNA clone NT2RP3004260 5' |
| 10033 | 23071 | 36671 | 0.95 | 0.0E+00 | AW500936.1 | EST_HUMAN | UI-HF-BP0p-air-f-05-0-UI.r1 NIH_MGC_51 Homo sapiens cDNA clone IMAGE:3072897 5' |
| 10039 | 23077 | 36677 | 13.26 | 0.0E+00 | BE740490.1 | EST_HUMAN | 601595558F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3949383 5' |
| 10039 | 23077 | 36678 | 13.26 | 0.0E+00 | BE740490.1 | EST_HUMAN | 601595558F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3949383 5' |
| 10052 | 23090 | 36692 | 1.56 | 0.0E+00 | 7662067 | NT | Homo sapiens KIAA0345 gene product (KIAA0345), mRNA |
| 10069 | 23107 | 36710 | 1.54 | 0.0E+00 | AL042278.1 | EST_HUMAN | DKFZp434L0120_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434L0120 5' |
| 10074 | 23112 | 36716 | 0.57 | 0.0E+00 | AL041084.2 | EST_HUMAN | DKFZp434B2416_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434B2416 5' |
| 10084 | 23122 | 36723 | 2.32 | 0.0E+00 | AU132349.1 | EST_HUMAN | AU132349 NT2RP3 Homo sapiens cDNA clone NT2RP3004260 5' |
| 10085 | 23123 | 36724 | 2.16 | 0.0E+00 | AF152308.1 | NT | Homo sapiens protocadherin alpha 12 (PCDH-alpha12) mRNA, complete cds |
| 10112 | 23150 | 36751 | 2.84 | 0.0E+00 | AF009220.1 | NT | Homo sapiens leucocyte immunoglobulin-like receptor-1 mRNA, complete cds |
| 10112 | 23150 | 36752 | 2.84 | 0.0E+00 | AF009220.1 | NT | Homo sapiens leucocyte immunoglobulin-like receptor-1 mRNA, complete cds |
| 10128 | 23166 | 36765 | 1.13 | 0.0E+00 | BF092898.1 | EST_HUMAN | MR4-TN0114-110900-101-e04 TN0114 Homo sapiens cDNA |
| 10160 | 23197 | 36793 | 2.75 | 0.0E+00 | BE280793.1 | EST_HUMAN | 601155227F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3138798 5' |
| 10169 | 23206 | 36799 | 6.57 | 0.0E+00 | BE388700.1 | EST_HUMAN | 601286351F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3613045 5' |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10169 | 23206 | 36800 | 6.57 | 0.0E+00 | BE388700.1 | EST_HUMAN | 601286351F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3613045 5' |
| 10178 | 23215 | 36806 | 0.87 | 0.0E+00 | AW236269.1 | EST_HUMAN | xn72b01.x1 NCI_CGAP_CML1 Homo sapiens cDNA clone IMAGE:2699977 3' similar to gb:X02152_cds1 L-LACTATE DEHYDROGENASE M CHAIN (HUMAN); |
| 10179 | 23216 | 36807 | 0.84 | 0.0E+00 | AA341305.1 | EST_HUMAN | EST46740 Fetal kidney II Homo sapiens cDNA 5' end |
| 10188 | 23225 | 36819 | 0.59 | 0.0E+00 | 11427235 | NT | Homo sapiens Chediak-Higashi syndrome 1 (CHS1), mRNA |
| 10208 | 23244 | 36834 | 0.94 | 0.0E+00 | AW964113.1 | EST_HUMAN | EST376186 MAGE resequences, MAGH Homo sapiens cDNA |
| 10222 | 23258 | 36845 | 5.99 | 0.0E+00 | AU143673.1 | EST_HUMAN | AU143673 Y79AA1 Homo sapiens cDNA clone Y79AA1002307 5' |
| 10222 | 23258 | 36846 | 5.99 | 0.0E+00 | AU143673.1 | EST_HUMAN | AU143673 Y79AA1 Homo sapiens cDNA clone Y79AA1002307 5' |
| 10225 | 23261 | 36849 | 3.31 | 0.0E+00 | AF072408.1 | NT | Homo sapiens killer cell inhibitory receptor KIRCI gene, exons 2, 3, and 4 |
| 10228 | 23263 | 36851 | 2.75 | 0.0E+00 | 11421001 | NT | Homo sapiens HEF like Protein (HEFL), mRNA |
| 10228 | 23263 | 36852 | 2.75 | 0.0E+00 | 11421001 | NT | Homo sapiens HEF like Protein (HEFL), mRNA |
| 10261 | 23296 | 36894 | 3.07 | 0.0E+00 | AU136637.1 | EST_HUMAN | AU136637 PLACE1 Homo sapiens cDNA clone PLACE1004737 5' |
| 10261 | 23296 | 36895 | 3.07 | 0.0E+00 | AU136637.1 | EST_HUMAN | AU136637 PLACE1 Homo sapiens cDNA clone PLACE1004737 5' |
| 10277 | 23312 | 36909 | .2 | 0.0E+00 | AJ295844.1 | NT | Homo sapiens partial RANBP7 gene for RanBP7/importin7 and partial ZNF143 gene |
| 10277 | 23312 | 36910 | 2 | 0.0E+00 | AJ295844.1 | NT | Homo sapiens partial RANBP7 gene for RanBP7/importin7 and partial ZNF143 gene |
| 10282 | 23317 | 36917 | 0.73 | 0.0E+00 | AV695712.1 | EST_HUMAN | AV695712 GKC Homo sapiens cDNA clone GKCDXA07 5' |
| 10282 | 23317 | 36918 | 0.73 | 0.0E+00 | AV695712.1 | EST_HUMAN | AV695712 GKC Homo sapiens cDNA clone GKCDXA07 5' |
| 10288 | 23323 | 36925 | 0.72 | 0.0E+00 | AF072408.1 | NT | Homo sapiens killer cell inhibitory receptor KIRCI gene, exons 2, 3, and 4 |
| 10290 | 23325 | 36928 | 2.42 | 0.0E+00 | AA196387.1 | EST_HUMAN | zp97h11.r1 Stratagene muscle 937209 Homo sapiens cDNA clone IMAGE:628197 5' |
| 10317 | 23352 | 36959 | 0.76 | 0.0E+00 | AA131248.1 | EST_HUMAN | zl31f01.r1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:503545 5' |
| 10317 | 23352 | 36960 | 0.76 | 0.0E+00 | AA131248.1 | EST_HUMAN | zl31f01.r1 Soares_pregnant_uterus_NbHPU Homo sapiens cDNA clone IMAGE:503545 5' |
| 10359 | 23394 | 37005 | 1.61 | 0.0E+00 | AF179308.1 | NT | Homo sapiens KIF4 (KIF4) mRNA, complete cds |
| 10404 | 23439 | 37046 | 0.99 | 0.0E+00 | BE880658.1 | EST_HUMAN | 601491565F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3893657 5' |
| 10417 | 23452 | 37057 | 5.34 | 0.0E+00 | BE730772.1 | EST_HUMAN | 601570712F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3845403 5' |
| 10417 | 23452 | 37058 | 5.34 | 0.0E+00 | BE730772.1 | EST_HUMAN | 601570712F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3845403 5' |
| 10422 | 23457 | 37062 | 0.8 | 0.0E+00 | AU127403.1 | EST_HUMAN | AU127403 NT2RP2 Homo sapiens cDNA clone NT2RP2001212 5' |
| 10432 | 23467 | 37073 | 0.89 | 0.0E+00 | BE958511.1 | EST_HUMAN | 601645134F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:3930177 5' |
| 10432 | 23467 | 37074 | 0.89 | 0.0E+00 | BE958511.1 | EST_HUMAN | 601645134F1 NIH_MGC_56 Homo sapiens cDNA clone IMAGE:3930177 5' |
| 10450 | 23485 | 37094 | 0.48 | 0.0E+00 | BE897487.1 | EST_HUMAN | 601432317F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3917453 5' |
| 10460 | 23495 | 37107 | 0.91 | 0.0E+00 | AA311624.1 | EST_HUMAN | EST182353 Jurkat T-cells VI Homo sapiens cDNA 5' end |
| 10461 | 23496 | 37108 | 0.55 | 0.0E+00 | 4758827 | NT | Homo sapiens neurexin III (NRXN3) mRNA |
| 10473 | 23508 | 37121 | 0.64 | 0.0E+00 | BE891113.1 | EST_HUMAN | 601432228F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3917598 5' |
| 10475 | 23510 | 37123 | 0.77 | 0.0E+00 | 11560151 | NT | Homo sapiens hypothetical C2H2 zinc finger protein FLJ22504 (FLJ22504), mRNA |
| 10486 | 23521 | 37130 | 1.56 | 0.0E+00 | AB029290.1 | NT | Homo sapiens mRNA for actin binding protein ABP620, complete cds |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10487 | 23522 | 37131 | 0.5 | 0.0E+00 | BE304522.1 | EST_HUMAN | 601105459F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2987918 5' |
| 10487 | 23522 | 37132 | 0.5 | 0.0E+00 | BE304522.1 | EST_HUMAN | 601105459F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2987918 5' |
| 10494 | 23529 | 37137 | 5.8 | 0.0E+00 | AB006590.1 | NT | Homo sapiens mRNA for estrogen receptor beta, complete cds |
| 10494 | 23529 | 37138 | 5.8 | 0.0E+00 | AB006590.1 | NT | Homo sapiens mRNA for estrogen receptor beta, complete cds |
| 10502 | 23537 | 37147 | 0.77 | 0.0E+00 | AA704457.1 | EST_HUMAN | zj19b06.s1 Soares_fetal_liver_spleen_1NFLS_S1 Homo sapiens cDNA clone IMAGE:450707 3' similar to gb:M14123_cds1 RETROVIRUS-RELATED GAG POLYPROTEIN (HUMAN); |
| 10504 | 23539 | 37148 | 1.08 | 0.0E+00 | M22921.1 | NT | Human beta 1,4-galactosyl-transferase mRNA, complete cds |
| 10506 | 23541 | 37151 | 4.81 | 0.0E+00 | BF340331.1 | EST_HUMAN | 602037045F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4184939 5' |
| 10506 | 23541 | 37152 | 4.81 | 0.0E+00 | BF340331.1 | EST_HUMAN | 602037045F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4184939 5' |
| 10530 | 23565 | 37172 | 0.59 | 0.0E+00 | BE897149.1 | EST_HUMAN | 601439713F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924578 5' |
| 10530 | 23565 | 37173 | 0.59 | 0.0E+00 | BE897149.1 | EST_HUMAN | 601439713F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924578 5' |
| 10595 | 23630 | 37237 | 1.07 | 0.0E+00 | AI631818.1 | EST_HUMAN | wa36e03.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2300188 3' similar to TR:Q61204 Q61204 NOTCH2-LIKE ; |
| 10595 | 23630 | 37238 | 1.07 | 0.0E+00 | AI631818.1 | EST_HUMAN | wa36e03.x1 NCI_CGAP_Kid11 Homo sapiens cDNA clone IMAGE:2300188 3' similar to TR:Q61204 Q61204 NOTCH2-LIKE ; |
| 10610 | 23644 | 37252 | 1.64 | 0.0E+00 | T03078.1 | EST_HUMAN | FB23A4 Fetal brain, Stratagene Homo sapiens cDNA clone FB23A4 3'end |
| 10638 | 23672 | 37282 | 0.67 | 0.0E+00 | AU122429.1 | EST_HUMAN | AU122429 MAMMA1 Homo sapiens cDNA clone MAMMA1002368 5' |
| 10644 | 23678 | 37288 | 0.48 | 0.0E+00 | 6005921 | NT | Homo sapiens triple functional domain (PTPRF interacting) (TRIO), mRNA |
| 10668 | 23702 | 37312 | 2.22 | 0.0E+00 | BF436218.1 | EST_HUMAN | nab45e12.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:3265271 3' |
| 10669 | 23703 |  | 1.71 | 0.0E+00 | AV654765.1 | EST_HUMAN | AV654765 GLC Homo sapiens cDNA clone GLCDZC07 3' |
| 10689 | 23722 | 37328 | 3.08 | 0.0E+00 | AW517960.1 | EST_HUMAN | xu74b01.x1 NCI_CGAP_Kid8 Homo sapiens cDNA clone IMAGE:2807401 3' similar to gb:M69066 MOESIN (HUMAN); |
| 10693 | 23726 | 37332 | 2.88 | 0.0E+00 | BE549213.1 | EST_HUMAN | 601078764F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3464703 5' |
| 10709 | 23742 | 37348 | 0.82 | 0.0E+00 | 11436005 | NT | Homo sapiens hypothetical protein DKFZp761P1010 (DKFZp761P1010), mRNA |
| 10735 | 23768 | 37378 | 0.52 | 0.0E+00 | X89893.1 | NT | H.sapiens mRNA for NK receptor (183 Actl) |
| 10736 | 23769 | 37379 | 3.35 | 0.0E+00 | BE781742.1 | EST_HUMAN | 601467419F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3870700 5' |
| 10758 | 23791 | 37409 | 2.32 | 0.0E+00 | BE082720.1 | EST_HUMAN | RC2-BT0642-150200-012-d03 BT0642 Homo sapiens cDNA |
| 10758 | 23791 | 37410 | 2.32 | 0.0E+00 | BE082720.1 | EST_HUMAN | RC2-BT0642-150200-012-d03 BT0642 Homo sapiens cDNA |
| 10764 | 23797 | 37417 | 0.57 | 0.0E+00 | Y08032.1 | NT | Human endogenous retrovirus-K, LTR U5 and gag gene |
| 10772 | 23805 | 37428 | 0.77 | 0.0E+00 | AI656890.1 | EST_HUMAN | tt64e07.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2244612 3' |
| 10779 | 23812 | 37435 | 9.15 | 0.0E+00 | BE743215.1 | EST_HUMAN | 601573895F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3835198 5' |
| 10779 | 23812 | 37436 | 9.15 | 0.0E+00 | BE743215.1 | EST_HUMAN | 601573895F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3835198 5' |
| 10784 | 23817 | 37439 | 0.63 | 0.0E+00 | BE617656.1 | EST_HUMAN | 601441723T1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3845956 3' |
| 10784 | 23817 | 37440 | 0.63 | 0.0E+00 | BE617656.1 | EST_HUMAN | 601441723T1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3845956 3' |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10786 | 23819 | 37442 | 0.46 | 0.0E+00 | AB006590.1 | NT | Homo sapiens mRNA for estrogen receptor beta, complete cds |
| 10786 | 23819 | 37443 | 0.46 | 0.0E+00 | AB006590.1 | NT | Homo sapiens mRNA for estrogen receptor beta, complete cds |
| 10809 | 23842 | 37465 | 0.51 | 0.0E+00 | H39805.1 | EST_HUMAN | yp01a10.r1 Soares breast 3NbHBst Homo sapiens cDNA clone IMAGE:186138 5' |
| 10835 | 23868 | 37491 | 0.54 | 0.0E+00 | D87675.1 | NT | Homo sapiens DNA for amyloid precursor protein, complete cds |
| 10846 | 23879 | 37499 | 0.59 | 0.0E+00 | BE392276.1 | EST_HUMAN | 601308167F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3626128 5' |
| 10863 | 25866 | 37518 | 0.52 | 0.0E+00 | AU125996.1 | EST_HUMAN | AU125996 NT2RM4 Homo sapiens cDNA clone NT2RM4002536 5' |
| 10872 | 23957 | 37586 | 1.84 | 0.0E+00 | AV711075.1 | EST_HUMAN | AV711075 Cu Homo sapiens cDNA clone CuAAKG05 5' |
| 10872 | 23957 | 37587 | 1.84 | 0.0E+00 | AV711075.1 | EST_HUMAN | AV711075 Cu Homo sapiens cDNA clone CuAAKG05 5' |
| 10874 | 23959 | | 2.55 | 0.0E+00 | AW813783.1 | EST_HUMAN | RC3-ST0197-120200-015-a03 ST0197 Homo sapiens cDNA |
| 10882 | 23966 | 37595 | 5.5 | 0.0E+00 | AW963563.1 | EST_HUMAN | EST375636 MAGE resequences, MAGH Homo sapiens cDNA |
| 10895 | 23979 | 37610 | 2.52 | 0.0E+00 | 11431124 | NT | Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA |
| 10895 | 23979 | 37611 | 2.52 | 0.0E+00 | 11431124 | NT | Homo sapiens ATP-binding cassette, sub-family A (ABC1), member 3 (ABCA3), mRNA |
| 10898 | 23982 | 37614 | 1.7 | 0.0E+00 | AW057621.1 | EST_HUMAN | wy61f09.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2553065 3' similar to TR:Q60566 Q60566 VDX ; |
| 10906 | 23989 | 37621 | 8.59 | 0.0E+00 | BE243270.1 | EST_HUMAN | TCAAP3D0917 Pediatric acute myelogenous leukemia cell (FAB M1) Baylor-HGSC project=TCAA Homo sapiens cDNA clone TCAAP0917 |
| 10907 | 23990 | 37622 | 2.72 | 0.0E+00 | AI652239.1 | EST_HUMAN | wb28a12.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2306974 3' similar to contains element MSR1 MSR1 repetitive element ; |
| 10907 | 23990 | 37623 | 2.72 | 0.0E+00 | AI652239.1 | EST_HUMAN | wb28a12.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2306974 3' similar to contains element MSR1 MSR1 repetitive element ; |
| 10912 | 23995 | 37628 | 1.48 | 0.0E+00 | BF306642.1 | EST_HUMAN | 601888704F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4122649 5' |
| 10913 | 23996 | 37629 | 1.74 | 0.0E+00 | BE872908.1 | EST_HUMAN | 601451502F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3855289 5' |
| 10913 | 23996 | 37630 | 1.74 | 0.0E+00 | BE872908.1 | EST_HUMAN | 601451502F1 NIH_MGC_65 Homo sapiens cDNA clone IMAGE:3855289 5' |
| 10920 | 24003 | 37637 | 3.59 | 0.0E+00 | 11545911 | NT | Homo sapiens NOD2 protein (NOD2), mRNA |
| 10920 | 24003 | 37638 | 3.59 | 0.0E+00 | 11545911 | NT | Homo sapiens NOD2 protein (NOD2), mRNA |
| 10936 | 24018 | 37651 | 1.52 | 0.0E+00 | AW404795.1 | EST_HUMAN | UI-HF-BL0-acm-d-04-0-UI.r1 NIH_MGC_37 Homo sapiens cDNA clone IMAGE:3059383 5' |
| 10940 | 24022 | 37656 | 2.85 | 0.0E+00 | 11424829 | NT | Homo sapiens hypothetical protein FLJ20079 (FLJ20079), mRNA |
| 10941 | 24023 | 37657 | 8.39 | 0.0E+00 | 4504536 | NT | Homo sapiens 5-hydroxytryptamine (serotonin) receptor 1E (HTR1E) mRNA |
| 10941 | 24023 | 37658 | 8.39 | 0.0E+00 | 4504536 | NT | Homo sapiens 5-hydroxytryptamine (serotonin) receptor 1E (HTR1E) mRNA |
| 10942 | 24024 | 37659 | 2.68 | 0.0E+00 | AI991827.1 | EST_HUMAN | wu32b06.x1 Soares_Dieckgraefe_colon_NHCD Homo sapiens cDNA clone IMAGE:2521715 3' |
| 10946 | 24028 | 37665 | 3.22 | 0.0E+00 | BE882109.1 | EST_HUMAN | 601505204F2 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3906865 5' |
| 10950 | 24032 | 37667 | 6.12 | 0.0E+00 | BE891630.1 | EST_HUMAN | 601434522F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3919636 5' |
| 10952 | 24034 | 37668 | 1.55 | 0.0E+00 | 8923939 | NT | Homo sapiens myosin, heavy polypeptide 2, skeletal muscle, adult (MYH2), mRNA |
| 10952 | 24034 | 37669 | 1.55 | 0.0E+00 | 8923939 | NT | Homo sapiens myosin, heavy polypeptide 2, skeletal muscle, adult (MYH2), mRNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 10965 | 24046 | 37680 | 22.14 | 0.0E+00 | BE903304.1 | EST_HUMAN | 601674332F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3957343 5' |
| 10968 | 19087 | 32399 | 1.85 | 0.0E+00 | AA195905.1 | EST_HUMAN | zp95b11.r1 Stratagene muscle 937209 Homo sapiens cDNA clone IMAGE:627933 5' similar to gb:X03740 MYOSIN HEAVY CHAIN, SKELETAL MUSCLE (HUMAN); |
| 10990 | 24069 | 37703 | 4.49 | 0.0E+00 | BE793498.1 | EST_HUMAN | 601588829F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3943015 5' |
| 10998 | 24077 | 37710 | 2.4 | 0.0E+00 | BE729706.1 | EST_HUMAN | 601562864F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3832575 5' |
| 10998 | 24077 | 37711 | 2.4 | 0.0E+00 | BE729706.1 | EST_HUMAN | 601562864F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3832575 5' |
| 10999 | 24078 | 37712 | 11.66 | 0.0E+00 | AV727362.1 | EST_HUMAN | AV727362 HTC Homo sapiens cDNA clone HTCAQH06 5' |
| 10999 | 24078 | 37713 | 11.66 | 0.0E+00 | AV727362.1 | EST_HUMAN | AV727362 HTC Homo sapiens cDNA clone HTCAQH06 5' |
| 11003 | 24082 | 37718 | 1.6 | 0.0E+00 | R17132.1 | EST_HUMAN | yg09e09.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:31674 5' |
| 11003 | 24082 | 37719 | 1.6 | 0.0E+00 | R17132.1 | EST_HUMAN | yg09e09.r1 Soares infant brain 1NIB Homo sapiens cDNA clone IMAGE:31674 5' |
| 11009 | 24088 | | 2.62 | 0.0E+00 | AW139414.1 | EST_HUMAN | UI-H-BI1-adq-e-06-0-UI.s1 NCI_CGAP_Sub3 Homo sapiens cDNA clone IMAGE:2717674 3' |
| 11014 | 24093 | 37732 | 11.61 | 0.0E+00 | AW516056.1 | EST_HUMAN | xy04g10.x1 NCI_CGAP_Lym12 Homo sapiens cDNA clone IMAGE:2852226 3' similar to gb:M60854 40S RIBOSOMAL PROTEIN S16 (HUMAN); |
| 11020 | 24099 | 37737 | 4.44 | 0.0E+00 | AU135741.1 | EST_HUMAN | AU135741 PLACE1 Homo sapiens cDNA clone PLACE1002794 5' |
| 11026 | 24105 | 37741 | 2.56 | 0.0E+00 | AW593333.1 | EST_HUMAN | hg13d02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2945475 3' similar to contains element MSR1 repetitive element ; |
| 11026 | 24105 | 37742 | 2.56 | 0.0E+00 | AW593333.1 | EST_HUMAN | hg13d02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2945475 3' similar to contains element MSR1 repetitive element ; . |
| 11026 | 24105 | 37743 | 2.56 | 0.0E+00 | AW593333.1 | EST_HUMAN | hg13d02.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2945475 3' similar to contains element MSR1 repetitive element ; |
| 11028 | 24107 | 37744 | 1.67 | 0.0E+00 | Z34897.1 | NT | H.sapiens mRNA for H1 histamine receptor |
| 11029 | 24108 | 37745 | 2.76 | 0.0E+00 | F13069.1 | EST_HUMAN | HSC3IC031 normalized infant brain cDNA Homo sapiens cDNA clone c-3ic03 |
| 11037 | 24116 | 37750 | 2.35 | 0.0E+00 | D10083.1 | NT | Homo sapiens RGH1 gene, retrovirus-like element |
| 11054 | 24131 | 37767 | 1.71 | 0.0E+00 | AW338094.1 | EST_HUMAN | xw66f01.x1 NCI_CGAP_Pan1 Homo sapiens cDNA clone IMAGE:2832985 3' similar to gb:X17115 IG MU CHAIN C REGION (HUMAN); |
| 11055 | 24132 | 37768 | 3.75 | 0.0E+00 | AW451230.1 | EST_HUMAN | UI-H-BI3-alh-a-01-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2736649 3' |
| 11055 | 24132 | 37769 | 3.75 | 0.0E+00 | AW451230.1 | EST_HUMAN | UI-H-BI3-alh-a-01-0-UI.s1 NCI_CGAP_Sub5 Homo sapiens cDNA clone IMAGE:2736649 3' |
| 11058 | 13443 | | 9.52 | 0.0E+00 | 4506632 | NT | Homo sapiens ribosomal protein L31 (RPL31) mRNA |
| 11060 | 24136 | 37771 | 1.79 | 0.0E+00 | AB014567.1 | NT | Homo sapiens mRNA for KIAA0667 protein, partial cds |
| 11073 | 24148 | 37787 | 1.92 | 0.0E+00 | BE298449.1 | EST_HUMAN | 601119248F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3029219 5' |
| 11087 | 24161 | 37797 | 1.47 | 0.0E+00 | AB011117.1 | NT | Homo sapiens mRNA for KIAA0545 protein, partial cds |
| 11092 | 24166 | 37803 | 1.39 | 0.0E+00 | AA377505.1 | EST_HUMAN | EST90347 Synovial sarcoma Homo sapiens cDNA 5' end similar to similar to LERK-2, placenta |
| 11106 | 24178 | 37813 | 3.3 | 0.0E+00 | BE792155.1 | EST_HUMAN | 601582046F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3936539 5' |
| 11107 | 24179 | | 76.9 | 0.0E+00 | BF684061.1 | EST_HUMAN | 602141405F1 NIH_MGC_46 Homo sapiens cDNA clone IMAGE:4302432 5' |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11108 | 24180 | 37814 | 1.45 | 0.0E+00 | BE269288.1 | EST_HUMAN | 601186342F1 NIH_MGC_8 Homo sapiens cDNA clone IMAGE:3544259 5' |
| 11110 | 24182 | 37816 | 7.93 | 0.0E+00 | AU118386.1 | EST_HUMAN | AU118386 HEMBA1 Homo sapiens cDNA clone HEMBA1003486 5' |
| 11111 | 24183 |  | 1.81 | 0.0E+00 | AW236269.1 | EST_HUMAN | xn72b01.x1 NCI_CGAP_CML1 Homo sapiens cDNA clone IMAGE:2699977 3' similar to gb:X02152_cds1 L-LACTATE DEHYDROGENASE M CHAIN (HUMAN); |
| 11116 | 24188 | 37820 | 5.71 | 0.0E+00 | AI149809.1 | EST_HUMAN | qf43c03.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1752772 3' |
| 11116 | 24188 | 37821 | 5.71 | 0.0E+00 | AI149809.1 | EST_HUMAN | qf43c03.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1752772 3' |
| 11117 | 24189 | 37822 | 2.53 | 0.0E+00 | AW391937.1 | EST_HUMAN | QV4-ST0234-121199-032-b06 ST0234 Homo sapiens cDNA |
| 11127 | 24199 |  | 11.83 | 0.0E+00 | AU116908.1 | EST_HUMAN | AU116908 HEMBA1 Homo sapiens cDNA clone HEMBA1000255 5' |
| 11130 | 24202 | 37827 | 9.67 | 0.0E+00 | 11424726 | NT | Homo sapiens insulin receptor (INSR), mRNA |
| 11132 | 24204 | 37828 | 2.14 | 0.0E+00 | AI367350.1 | EST_HUMAN | qv95c12.x1 NCI_CGAP_Ut2 Homo sapiens cDNA clone IMAGE:1989334 3' similar to TR:Q14673 Q14673 KIAA0164 PROTEIN. ; |
| 11132 | 24204 | 37829 | 2.14 | 0.0E+00 | AI367350.1 | EST_HUMAN | qv95c12.x1 NCI_CGAP_Ut2 Homo sapiens cDNA clone IMAGE:1989334 3' similar to TR:Q14673 Q14673 KIAA0164 PROTEIN. ; |
| 11137 | 24209 | 37835 | 1.63 | 0.0E+00 | BF340308.1 | EST_HUMAN | 602037014F1 NCI_CGAP_Brn64 Homo sapiens cDNA clone IMAGE:4184979 5' |
| 11139 | 24211 | 37837 | 13.91 | 0.0E+00 | BE261209.1 | EST_HUMAN | 601148357F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3163310 5' |
| 11144 | 24216 | 37843 | 2.19 | 0.0E+00 | AB029040.1 | NT | Homo sapiens mRNA for KIAA1117 protein, partial cds |
| 11147 | 24219 | 37846 | 1.51 | 0.0E+00 | AB007932.1 | NT | Homo sapiens mRNA for KIAA0463 protein, partial cds |
| 11151 | 24222 | 37850 | 3.89 | 0.0E+00 | U50326.1 | NT | Human protein kinase C substrate 80K-H (PRKCSH) gene, exon 15-17 |
| 11155 | 24226 | 37855 | 2.43 | 0.0E+00 | BE773036.1 | EST_HUMAN | RC1-FT0134-170700-012-f07 FT0134 Homo sapiens cDNA |
| 11155 | 24226 | 37856 | 2.43 | 0.0E+00 | BE773036.1 | EST_HUMAN | RC1-FT0134-170700-012-f07 FT0134 Homo sapiens cDNA |
| 11177 | 24246 | 37879 | 51.22 | 0.0E+00 | AA740782.1 | EST_HUMAN | ob32e07.s1 NCI_CGAP_Kid5 Homo sapiens cDNA clone IMAGE:1325412 3' similar to contains element MSR1 repetitive element ; |
| 11186 | 24255 | 37890 | 2.81 | 0.0E+00 | AF252303.1 | NT | Homo sapiens signaling lymphocytic activation molecule (SLAM) gene, exon 2 |
| 11199 | 24268 | 37903 | 1.71 | 0.0E+00 | BE266478.1 | EST_HUMAN | 601192748F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3536867 5' |
| 11199 | 24268 | 37904 | 1.71 | 0.0E+00 | BE266478.1 | EST_HUMAN | 601192748F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3536867 5' |
| 11201 | 24270 | 37906 | 4.9 | 0.0E+00 | C05089.1 | EST_HUMAN | C05089 Human heart cDNA (YNakamura) Homo sapiens cDNA clone 3NHC4817 |
| 11208 | 24277 | 37914 | 2.1 | 0.0E+00 | AA746375.1 | EST_HUMAN | oa56h01.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1309009 5' |
| 11208 | 24277 | 37915 | 2.1 | 0.0E+00 | AA746375.1 | EST_HUMAN | oa56h01.r1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1309009 5' |
| 11218 | 24287 | 37926 | 2.69 | 0.0E+00 | M78448.1 | EST_HUMAN | EST00596 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBCC26 |
| 11218 | 24287 | 37927 | 2.69 | 0.0E+00 | M78448.1 | EST_HUMAN | EST00596 Fetal brain, Stratagene (cat#936206) Homo sapiens cDNA clone HFBCC26 |
| 11221 | 24290 | 37930 | 1.76 | 0.0E+00 | BF353625.1 | EST_HUMAN | QV2-HT0698-020800-295-d07 HT0698 Homo sapiens cDNA |
| 11222 | 24291 | 37931 | 6.5 | 0.0E+00 | AL157608.1 | EST_HUMAN | DKFZp761J2116_r1 761 (synonym: hamy2) Homo sapiens cDNA clone DKFZp761J2116 5' |
| 11234 | 24303 | 37940 | 1.86 | 0.0E+00 | BE562822.1 | EST_HUMAN | 601336530F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3690390 5' |
| 11236 | 24305 | 37942 | 6.05 | 0.0E+00 | AU116988.1 | EST_HUMAN | AU116988 HEMBA1 Homo sapiens cDNA clone HEMBA1000424 5' |

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Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11250 | 24319 | 37959 | 1.75 | 0.0E+00 | AV693656.1 | EST_HUMAN | AV693656 GKC Homo sapiens cDNA clone GKCCNC03 5' |
| 11260 | 24329 | 37969 | 2.97 | 0.0E+00 | BF366553.1 | EST_HUMAN | IL3-NT0104-200500-143-A07 NT0104 Homo sapiens cDNA |
| 11288 | 24354 | 37994 | 2.4 | 0.0E+00 | BE182360.1 | EST_HUMAN | PM0-HT0645-060500-002-E05 HT0645 Homo sapiens cDNA |
| 11288 | 24354 | 37995 | 2.4 | 0.0E+00 | BE182360.1 | EST_HUMAN | PM0-HT0645-060500-002-E05 HT0645 Homo sapiens cDNA |
| 11290 | 24356 |  | 1.51 | 0.0E+00 | AV701152.1 | EST_HUMAN | AV701152 ADA Homo sapiens cDNA clone ADAAAD06 5' |
| 11305 | 24370 | 38011 | 3.02 | 0.0E+00 | BE896423.1 | EST_HUMAN | 601439092F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924142 5' |
| 11311 | 24375 | 38019 | 1.83 | 0.0E+00 | AW500307.1 | EST_HUMAN | UI-HF-BN0-akg-d-02-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077019 5' |
| 11311 | 24375 | 38020 | 1.83 | 0.0E+00 | AW500307.1 | EST_HUMAN | UI-HF-BN0-akg-d-02-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077019 5' |
| 11314 | 24378 | 38023 | 2.49 | 0.0E+00 | BE018293.1 | EST_HUMAN | bb78c04.y1 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:3048486 5' similar to gb:Y00345_cds1 POLYADENYLATE-BINDING PROTEIN (HUMAN); gb:X65553 M.musculus mRNA for poly(A) binding protein (MOUSE); |
| 11345 | 25869 | 38058 | 1.45 | 0.0E+00 | AW387766.1 | EST_HUMAN | MR4-ST0118-041099-010-A12 ST0118 Homo sapiens cDNA |
| 11345 | 25869 | 38059 | 1.45 | 0.0E+00 | AW387766.1 | EST_HUMAN | MR4-ST0118-041099-010-A12 ST0118 Homo sapiens cDNA |
| 11353 | 24415 | 38070 | 3.23 | 0.0E+00 | BE897953.1 | EST_HUMAN | 601440446F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3925403 5' |
| 11355 | 24417 | 38073 | 2.24 | 0.0E+00 | AI459545.1 | EST_HUMAN | ao86g11.x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1952804 3' |
| 11355 | 24417 | 38074 | 2.24 | 0.0E+00 | AI459545.1 | EST_HUMAN | ao86g11.x1 Schiller meningioma Homo sapiens cDNA clone IMAGE:1952804 3' |
| 11369 | 24430 | 38087 | 1.89 | 0.0E+00 | AL042278.1 | EST_HUMAN | DKFZp434L0120_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434L0120 5' |
| 11390 | 24451 | 38112 | 1.37 | 0.0E+00 | AI073917.1 | EST_HUMAN | ou61d04.x1 NCI_CGAP_Br2 Homo sapiens cDNA clone IMAGE:1632295 3' similar to SW:LRP1_HUMAN Q07954 LOW-DENSITY LIPOPROTEIN RECEPTOR-RELATED PROTEIN 1 PRECURSOR ; |
| 11390 | 24451 | 38113 | 1.37 | 0.0E+00 | AI073917.1 | EST_HUMAN | ou61d04.x1 NCI_CGAP_Br2 Homo sapiens cDNA clone IMAGE:1632295 3' similar to SW:LRP1_HUMAN Q07954 LOW-DENSITY LIPOPROTEIN RECEPTOR-RELATED PROTEIN 1 PRECURSOR ; |
| 11390 | 24451 | 38114 | 1.37 | 0.0E+00 | AI073917.1 | EST_HUMAN | ou61d04.x1 NCI_CGAP_Br2 Homo sapiens cDNA clone IMAGE:1632295 3' similar to SW:LRP1_HUMAN Q07954 LOW-DENSITY LIPOPROTEIN RECEPTOR-RELATED PROTEIN 1 PRECURSOR ; |
| 11404 | 24465 | 38130 | 3.8 | 0.0E+00 | 4758827 | NT | Homo sapiens neurexin III (NRXN3) mRNA |
| 11405 | 24466 | 38131 | 24.41 | 0.0E+00 | BF206561.1 | EST_HUMAN | 601870902F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4101433 5' |
| 11411 | 24472 | 38137 | 11.85 | 0.0E+00 | AW207734.1 | EST_HUMAN | UI-H-BI2-age-h-01-0-UI.s1 NCI_CGAP_Sub4 Homo sapiens cDNA clone IMAGE:2724312 3' |
| 11416 | 24477 | 38141 | 3.93 | 0.0E+00 | AB018260.1 | NT | Homo sapiens mRNA for KIAA0717 protein, partial cds |
| 11416 | 24477 | 38142 | 3.93 | 0.0E+00 | AB018260.1 | NT | Homo sapiens mRNA for KIAA0717 protein, partial cds |
| 11418 | 24479 | 38144 | 2.63 | 0.0E+00 | BE206846.1 | EST_HUMAN | ba04d07.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823373 5' similar to TR:O76022 O76022 E1B-55KDA-ASSOCIATED PROTEIN. ; |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11418 | 24479 | 38145 | 2.63 | 0.0E+00 | BE206846.1 | EST_HUMAN | ba04d07.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823373 5' similar to TR:O76022 O76022 E1B-55KDA-ASSOCIATED PROTEIN. ; |
| 11429 | 24490 | 38155 | 2.37 | 0.0E+00 | 11526409 | NT | Homo sapiens KIAA0426 gene product (KIAA0426), mRNA |
| 11438 | 24499 | 38166 | 1.68 | 0.0E+00 | AI075915.1 | EST_HUMAN | ov46g07.x1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:1640412 3' similar to TR:Q14507 Q14507 EPIDIDYMIS-SPECIFIC GENE PRODUCT, ALPHA. ; |
| 11445 | 24506 | 38172 | 1.73 | 0.0E+00 | 11024711 | NT | Homo sapiens myosin, heavy polypeptide 4, skeletal muscle (MYH4), mRNA |
| 11448 | 24509 | 38176 | 1.98 | 0.0E+00 | BF093687.1 | EST_HUMAN | QV0-UM0091-120900-385-b12 UM0091 Homo sapiens cDNA |
| 11449 | 20710 | 34189 | 1.94 | 0.0E+00 | L32832.1 | NT | Homo sapiens zinc finger homeodomain protein (ATBF1-A) mRNA, complete cds |
| 11452 | 24512 | 38178 | 4.61 | 0.0E+00 | BE148076.1 | EST_HUMAN | RC3-HT0230-040500-110-h04 HT0230 Homo sapiens cDNA |
| 11452 | 24512 | 38179 | 4.61 | 0.0E+00 | BE148076.1 | EST_HUMAN | RC3-HT0230-040500-110-h04 HT0230 Homo sapiens cDNA |
| 11475 | 24534 | 38204 | 1.66 | 0.0E+00 | AW673469.1 | EST_HUMAN | ba54d08.y3 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2900367 5' similar to TR:O60275 O60275 KIAA0522 PROTEIN ; |
| 11475 | 24534 | 38205 | 1.66 | 0.0E+00 | AW673469.1 | EST_HUMAN | ba54d08.y3 NIH_MGC_10 Homo sapiens cDNA clone IMAGE:2900367 5' similar to TR:O60275 O60275 KIAA0522 PROTEIN ; |
| 11490 | 24549 | 38223 | 4.84 | 0.0E+00 | BF507876.1 | EST_HUMAN | UI-H-BI4-aok-b-10-0-UI.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3085026 3' |
| 11490 | 24549 | 38224 | 4.84 | 0.0E+00 | BF507876.1 | EST_HUMAN | UI-H-BI4-aok-b-10-0-UI.s1 NCI_CGAP_Sub8 Homo sapiens cDNA clone IMAGE:3085026 3' |
| 11496 | 24554 | 38229 | 4.65 | 0.0E+00 | AU135170.1 | EST_HUMAN | AU135170 PLACE1 Homo sapiens cDNA clone PLACE1001381 5' |
| 11501 | 24559 | 38234 | 2.07 | 0.0E+00 | BF576138.1 | EST_HUMAN | 602132459F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4271630 5' |
| 11501 | 24559 | 38235 | 2.07 | 0.0E+00 | BF576138.1 | EST_HUMAN | 602132459F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4271630 5' |
| 11503 | 24561 | 38238 | 4.06 | 0.0E+00 | BE876401.1 | EST_HUMAN | 601486828F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3889207 5' |
| 11503 | 24561 | 38239 | 4.06 | 0.0E+00 | BE876401.1 | EST_HUMAN | 601486828F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3889207 5' |
| 11511 | 24569 | 38246 | 1.61 | 0.0E+00 | D87682.1 | NT | Human mRNA for KIAA0241 gene, partial cds |
| 11516 | 24573 |  | 3.87 | 0.0E+00 | BF240536.1 | EST_HUMAN | 601875630F1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:4099710 5' |
| 11531 | 24587 | 38262 | 1.81 | 0.0E+00 | AB037737.1 | NT | Homo sapiens mRNA for KIAA1316 protein, partial cds |
| 11531 | 24587 | 38263 | 1.81 | 0.0E+00 | AB037737.1 | NT | Homo sapiens mRNA for KIAA1316 protein, partial cds |
| 11535 | 24591 | 38266 | 3.09 | 0.0E+00 | 11430868 | NT | Homo sapiens retinoblastoma-like 2 (p130) (RBL2), mRNA |
| 11536 | 24691 | 38267 | 3.09 | 0.0E+00 | 11430868 | NT | Homo sapiens retinoblastoma-like 2 (p130) (RBL2), mRNA |
| 11553 | 24608 | 38287 | 6.13 | 0.0E+00 | 4503544 | NT | Homo sapiens eukaryotic translation initiation factor 5A (EIF5A) mRNA |
| 11560 | 24615 | 38294 | 2.06 | 0.0E+00 | BF576267.1 | EST_HUMAN | 602134132F1 NIH_MGC_81 Homo sapiens cDNA clone IMAGE:4289502 5' |
| 11562 | 24617 | 38297 | 3.53 | 0.0E+00 | AW328173.1 | EST_HUMAN | dr04g05.x1 NIH_MGC_3 Homo sapiens cDNA clone IMAGE:2847177 5' |
| 11567 | 24622 |  | 42.5 | 0.0E+00 | M55083.1 | NT | Human gamma actin-like pseudogene, complete cds |
| 11571 | 24626 | 38305 | 1.75 | 0.0E+00 | AI660968.1 | EST_HUMAN | wf20e11.x1 Soares_Dieckgraefe_colon_NHUC Homo sapiens cDNA clone IMAGE:2351180 3' similar to gb:M87789 IG GAMMA-1 CHAIN C REGION (HUMAN); |
| 11574 | 24629 | 38307 | 3.37 | 0.0E+00 | BF306996.1 | EST_HUMAN | 601889823F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4123948 5' |

## Table 4
## Single Exon Probes Expressed In Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11574 | 24629 | 38308 | 3.37 | 0.0E+00 | BF306996.1 | EST_HUMAN | 601889823F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4123948 5' |
| 11581 | 24635 | 38315 | 47.2 | 0.0E+00 | BF362462.1 | EST_HUMAN | QV2-NN0054-230800-333-e04 NN0054 Homo sapiens cDNA |
| 11601 | 24654 | 38338 | 2.32 | 0.0E+00 | U36264.1 | NT | Human beta-prime-adaptin (BAM22) gene, exon 16 |
| 11601 | 24654 | 38339 | 2.32 | 0.0E+00 | U36264.1 | NT | Human beta-prime-adaptin (BAM22) gene, exon 16 |
| 11606 | 24659 | | 4.33 | 0.0E+00 | BE897051.1 | EST_HUMAN | 601439605F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3924577 5' |
| 11607 | 24660 | | 2.37 | 0.0E+00 | 4503786 | NT | Homo sapiens fyn-related kinase (FRK) mRNA |
| 11621 | 24672 | 38361 | 2.34 | 0.0E+00 | 8923698 | NT | Homo sapiens golgin-like protein (GLP), mRNA |
| 11623 | 24674 | | 2.07 | 0.0E+00 | BF207662.1 | EST_HUMAN | 601861947F1 NIH_MGC_53 Homo sapiens cDNA clone IMAGE:4081716 5' |
| 11636 | 24716 | 38407 | 4.53 | 0.0E+00 | BE206846.1 | EST_HUMAN | ba04d07.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823373 5' similar to TR:O76022 O76022 E1B-55KDA-ASSOCIATED PROTEIN. ; |
| 11636 | 24716 | 38408 | 4.53 | 0.0E+00 | BE206846.1 | EST_HUMAN. | ba04d07.y1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:2823373 5' similar to TR:O76022 O76022 E1B-55KDA-ASSOCIATED PROTEIN. ; |
| 11638 | 24718 | 38410 | 3.69 | 0.0E+00 | AW763028.1 | EST_HUMAN | QV0-CT0225-101299-071-f06 CT0225 Homo sapiens cDNA |
| 11643 | 24723 | | 3.01 | 0.0E+00 | AA558707.1 | EST_HUMAN | nl42c08.s1 NCI_CGAP_Pr4 Homo sapiens cDNA clone IMAGE:1043342 similar to gb:M95178 ALPHA-ACTININ 1, CYTOSKELETAL ISOFORM (HUMAN); |
| 11644 | 18590 | 31562 | 2.56 | 0.0E+00 | AI934954.1 | EST_HUMAN | wp06g08.x1 NCI_CGAP_Kid12 Homo sapiens cDNA clone IMAGE:2464094 3' |
| 11645 | 24724 | 38416 | 7.51 | 0.0E+00 | AW327895.1 | EST_HUMAN | dr02b08.x1 NIH_MGC_3 Homo sapiens cDNA clone IMAGE:2846919 5' |
| 11664 | 25870 | 38435 | 1.78 | 0.0E+00 | AW292776.1 | EST_HUMAN | UI-H-BW0-aij-d-07-0-UI.s1 NCI_CGAP_Sub6 Homo sapiens cDNA clone IMAGE:2729509 3' |
| 11671 | 23899 | 37522 | 1.93 | 0.0E+00 | 4758827 | NT | Homo sapiens neurexin III (NRXN3) mRNA |
| 11677 | 24676 | 38367 | 1.35 | 0.0E+00 | BE254058.1 | EST_HUMAN | 601113903F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3354600 5' |
| 11680 | 24679 | 38369 | 1.79 | 0.0E+00 | BE965909.2 | EST_HUMAN | 601659088R1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3895916 3' |
| 11680 | 24679 | 38370 | 1.79 | 0.0E+00 | BE965909.2 | EST_HUMAN | 601659088R1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3895916 3' |
| 11681 | 24680 | 38371 | 3.81 | 0.0E+00 | BE185656.1 | EST_HUMAN | IL5-HT0731-020500-077-f05 HT0731 Homo sapiens cDNA |
| 11682 | 24681 | | 1.39 | 0.0E+00 | BF513960.1 | EST_HUMAN | UI-H-BW1-amv-a-05-0-UI.s1 NCI_CGAP_Sub7 Homo sapiens cDNA clone IMAGE:3071121 3' |
| 11696 | 24693 | 38384 | 7.19 | 0.0E+00 | AL046540.1 | EST_HUMAN | DKFZp434G178_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434G178 5' |
| 11696 | 24693 | 38385 | 7.19 | 0.0E+00 | AL046540.1 | EST_HUMAN | DKFZp434G178_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434G178 5' |
| 11706 | 24703 | 38395 | 10.19 | 0.0E+00 | AI923116.1 | EST_HUMAN | wn83g03.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2452468 3' similar to gb:S37431 LAMININ RECEPTOR (HUMAN); |
| 11708 | 24748 | 38440 | 4.47 | 0.0E+00 | AA760913.1 | EST_HUMAN | nz11c07.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1287468 3' similar to TR:Q13686 Q13686 ALKB HOMOLOG PROTEIN. ; |
| 11708 | 24748 | 38441 | 4.47 | 0.0E+00 | AA760913.1 | EST_HUMAN | nz11c07.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1287468 3' similar to TR:Q13686 Q13686 ALKB HOMOLOG PROTEIN. ; |
| 11713 | 24753 | 38447 | 2.21 | 0.0E+00 | BE910546.1 | EST_HUMAN | 601501090F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3902926 5' |

## Table 4
## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11723 | 23909 | 37533 | 11.64 | 0.0E+00 | BE676347.1 | EST_HUMAN | 7t27f12.x1 NCI_CGAP_CLL1 Homo sapiens cDNA clone IMAGE:3295919 3' similar to TR:O00409 O00409 CHECKPOINT SUPPRESSOR 1. ; |
| 11725 | 23911 | 37535 | 1.47 | 0.0E+00 | AI683358.1 | EST_HUMAN | tx66b09.x1 NCI_CGAP_Ut1 Homo sapiens cDNA clone IMAGE:2274521 3' similar to gb:M55542 INTERFERON-INDUCED GUANYLATE-BINDING PROTEIN 1 (HUMAN); |
| 11727 | 23913 | 37537 | 3.13 | 0.0E+00 | BE615668.1 | EST_HUMAN | 601279335F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3611144 5' |
| 11727 | 23913 | 37538 | 3.13 | 0.0E+00 | BE615668.1 | EST_HUMAN | 601279335F1 NIH_MGC_39 Homo sapiens cDNA clone IMAGE:3611144 5' |
| 11734 | 23920 | 37545 | 1.59 | 0.0E+00 | AV757420.1 | EST_HUMAN | AV757420 BM Homo sapiens cDNA clone BMFAGH03 5' |
| 11739 | 23925 | 37550 | 7.33 | 0.0E+00 | AL037746.1 | EST_HUMAN | DKFZp564C187_r1 564 (synonym: hfbr2) Homo sapiens cDNA clone DKFZp564C187 5' |
| 11740 | 23926 | 37551 | 4.2 | 0.0E+00 | U62769.1 | NT | Human oxytocinase variant 2 mRNA, complete cds |
| 11745 | 23931 | 37557 | 1.33 | 0.0E+00 | BE883386.1 | EST_HUMAN | 601509139F1 NIH_MGC_71 Homo sapiens cDNA clone IMAGE:3910833 5' |
| 11766 | 24759 | 38454 | 1.75 | 0.0E+00 | Y18890.1 | NT | Human endogenous retrovirus type K (HERV-K), gag, pol and env genes |
| 11769 | 24761 | 38455 | 3.59 | 0.0E+00 | L39891.1 | NT | Homo sapiens polycystic kidney disease-associated protein (PKD1) gene, complete cds |
| 11769 | 24761 | 38456 | 3.59 | 0.0E+00 | L39891.1 | NT | Homo sapiens polycystic kidney disease-associated protein (PKD1) gene, complete cds |
| 11784 | 24774 | 38470 | 2.03 | 0.0E+00 | AU138211.1 | EST_HUMAN | AU138211 PLACE1 Homo sapiens cDNA clone PLACE1008077 5' |
| 11797 | 24787 | 38485 | 6.43 | 0.0E+00 | BE622317.1 | EST_HUMAN | 601441096F1 NIH_MGC_72 Homo sapiens cDNA clone IMAGE:3916270 5' |
| 11833 | 24822 | 38512 | 17.72 | 0.0E+00 | BE748899.1 | EST_HUMAN | 601572186T1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:3839012 3' |
| 11833 | 24822 | 38513 | 17.72 | 0.0E+00 | BE748899.1 | EST_HUMAN | 601572186T1 NIH_MGC_55 Homo sapiens cDNA clone IMAGE:3839012 3' |
| 11845 | 24834 | 38527 | 4.58 | 0.0E+00 | AU141882.1 | EST_HUMAN | AU141882 THYRO1 Homo sapiens cDNA clone THYRO1001398 5' |
| 11845 | 24834 | 38528 | 4.58 | 0.0E+00 | AU141882.1 | EST_HUMAN | AU141882 THYRO1 Homo sapiens cDNA clone THYRO1001398 5' |
| 11848 | 24837 | 38531 | 2.7 | 0.0E+00 | AW006022.1 | EST_HUMAN | wz91h01.x1 NCI_CGAP_Brn25 Homo sapiens cDNA clone IMAGE:2566225 3' similar to WP:F53H10.2 CE11040 ZINC FINGER, C2H2 TYPE ; |
| 11853 | 25871 | 38537 | 2.73 | 0.0E+00 | BF002333.1 | EST_HUMAN | 7h22b10.x1 NCI_CGAP_Co16 Homo sapiens cDNA clone IMAGE:3316699 3' similar to TR:Q13458 Q13458 TRIO. ; |
| 11864 | 24852 | 38548 | 1.32 | 0.0E+00 | C06264.1 | EST_HUMAN | C06264 Human pancreatic islet Homo sapiens cDNA similar to insulin receptor |
| 11868 | 24856 | | 1.56 | 0.0E+00 | BE727811.1 | EST_HUMAN | 601564180F1 NIH_MGC_20 Homo sapiens cDNA clone IMAGE:3833730 5' |
| 11872 | 24860 | 38555 | 2.36 | 0.0E+00 | AI472010.1 | EST_HUMAN | tj80a10.x1 Soares_NSF_F8_9W_OT_PA_P_S1 Homo sapiens cDNA clone IMAGE:2147802 3' similar to gb:M31661 PROLACTIN RECEPTOR TYPE 2 PRECURSOR (HUMAN); |
| 11878 | 24866 | 38563 | 2.84 | 0.0E+00 | AW387776.1 | EST_HUMAN | MR4-ST0118-261099-012-b03 ST0118 Homo sapiens cDNA |
| 11878 | 24866 | 38564 | 2.84 | 0.0E+00 | AW387776.1 | EST_HUMAN | MR4-ST0118-261099-012-b03 ST0118 Homo sapiens cDNA |
| 11889 | 24877 | | 1.8 | 0.0E+00 | AW863777.1 | EST_HUMAN | MR3-SN0010-310300-107-h03 SN0010 Homo sapiens cDNA |
| 11901 | 24889 | 38589 | 3.67 | 0.0E+00 | 11435244 | NT | Homo sapiens KIAA0247 gene product (KIAA0247), mRNA |
| 11901 | 24889 | 38590 | 3.67 | 0.0E+00 | 11435244 | NT | Homo sapiens KIAA0247 gene product (KIAA0247), mRNA |
| 11907 | 24894 | 38598 | 4.38 | 0.0E+00 | U36253.1 | NT | Human beta-prime-adaptin (BAM22) gene, exon 5 |
| 11911 | 24898 | 38600 | 26.74 | 0.0E+00 | BE379254.1 | EST_HUMAN | 601237691F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3609623 5' |

Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 11911 | 24898 | 38601 | 26.74 | 0.0E+00 | BE379254.1 | EST_HUMAN | 601237691F1 NIH_MGC_44 Homo sapiens cDNA clone IMAGE:3609823 5' |
| 11917 | 24903 | 38606 | 4.87 | 0.0E+00 | AW500056.1 | EST_HUMAN | UI-HF-BN0-akl-b-03-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3077332 5' |
| 11932 | 24918 | 38621 | 2.05 | 0.0E+00 | BE794758.1 | EST_HUMAN | 601590588F1 NIH_MGC_7 Homo sapiens cDNA clone IMAGE:3944708 5' |
| 11934 | 24920 | 38622 | 65.18 | 0.0E+00 | BE879633.1 | EST_HUMAN | 601491821F1 NIH_MGC_69 Homo sapiens cDNA clone IMAGE:3894220 5' |
| 11935 | 24921 | 38623 | 1.6 | 0.0E+00 | M60676.1 | NT | Human von Willebrand factor pseudogene corresponding to exons 23 through 34 |
| 11941 | 24927 | 38629 | 1.38 | 0.0E+00 | 4758827 | NT | Homo sapiens neurexin III (NRXN3) mRNA |
| 11941 | 24927 | 38630 | 1.38 | 0.0E+00 | 4758827 | NT | Homo sapiens neurexin III (NRXN3) mRNA |
| 11946 | 24932 | 38635 | 1.68 | 0.0E+00 | AF053543.1 | NT | Homo sapiens glutathione transferase zeta 1 (GSTZ1) gene, exons 6 and 7 |
| 11953 | 24939 | 38642 | 7.29 | 0.0E+00 | BE409993.1 | EST_HUMAN | 601299403F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3628544 5' |
| 11954 | 24940 | 38643 | 2.22 | 0.0E+00 | BE148650.1 | EST_HUMAN | MR0-HT0241-150600-011-f02 HT0241 Homo sapiens cDNA |
| 11955 | 24941 | 38644 | 2.89 | 0.0E+00 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 11955 | 24941 | 38645 | 2.89 | 0.0E+00 | AF223391.1 | NT | Homo sapiens calcium channel alpha1E subunit (CACNA1E) gene, exons 7-49, and partial cds, alternatively spliced |
| 11956 | 18785 | 31831 | 1.48 | 0.0E+00 | D26535.1 | NT | Human gene for dihydrolipoamide succinyltransferase, complete cds (exon 1-15) |
| 11956 | 18785 | 31832 | 1.48 | 0.0E+00 | D26535.1 | NT | Human gene for dihydrolipoamide succinyltransferase, complete cds (exon 1-15) |
| 11958 | 24943 | 38647 | 11.38 | 0.0E+00 | BF681641.1 | EST_HUMAN | 602155722F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4296725 5' |
| 11958 | 24943 | 38648 | 11.38 | 0.0E+00 | BF681641.1 | EST_HUMAN | 602155722F1 NIH_MGC_83 Homo sapiens cDNA clone IMAGE:4296725 5' |
| 11964 | 24949 | 38655 | 1.79 | 0.0E+00 | AU132940.1 | EST_HUMAN | AU132940 NT2RP4 Homo sapiens cDNA clone NT2RP4000929 5' |
| 11967 | 24952 | 38657 | 4.99 | 0.0E+00 | BE903372.1 | EST_HUMAN | 601676357F1 NIH_MGC_21 Homo sapiens cDNA clone IMAGE:3958935 5' |
| 11983 | 24968 | 38671 | 1.56 | 0.0E+00 | BF312552.1 | EST_HUMAN | 601897524F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4127069 5' |
| 11983 | 24968 | 38672 | 1.56 | 0.0E+00 | BF312552.1 | EST_HUMAN | 601897524F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:4127069 5' |
| 11986 | 24971 | 38675 | 3.4 | 0.0E+00 | X51755.1 | NT | Human lambda-immunoglobulin constant region complex (germline) |
| 11986 | 24971 | 38676 | 3.4 | 0.0E+00 | X51755.1 | NT | Human lambda-immunoglobulin constant region complex (germline) |
| 11998 | 24983 |  | 1.96 | 0.0E+00 | BE906402.1 | EST_HUMAN | 601498553F1 NIH_MGC_70 Homo sapiens cDNA clone IMAGE:3900396 5' |
| 12013 | 24997 | 38700 | 1.46 | 0.0E+00 | 9636487 | NT | Human endogenous retrovirus, complete genome |
| 12028 | 25872 |  | 8.57 | 0.0E+00 | BF309120.1 | EST_HUMAN | 601890534F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:4131416 5' |
| 12029 | 25012 | 38713 | 2.37 | 0.0E+00 | BE698861.1 | EST_HUMAN | RC4-NN0025-120600-016-b07 NN0025 Homo sapiens cDNA |
| 12029 | 25012 | 38714 | 2.37 | 0.0E+00 | BE698861.1 | EST_HUMAN | RC4-NN0025-120600-016-b07 NN0025 Homo sapiens cDNA |
| 12032 | 25015 | 38717 | 60.96 | 0.0E+00 | BE297175.1 | EST_HUMAN | 601177407F1 NIH_MGC_17 Homo sapiens cDNA clone IMAGE:3532868 5' |
| 12046 | 25027 | 38733 | 1.42 | 0.0E+00 | BE744311.1 | EST_HUMAN | 601576525F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3837222 5' |
| 12046 | 25027 | 38734 | 1.42 | 0.0E+00 | BE744311.1 | EST_HUMAN | 601576525F1 NIH_MGC_9 Homo sapiens cDNA clone IMAGE:3837222 5' |
| 12054 | 25035 | 38741 | 2.02 | 0.0E+00 | BE257612.1 | EST_HUMAN | 601113009F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3353378 5' |
| 12054 | 25035 | 38742 | 2.02 | 0.0E+00 | BE257612.1 | EST_HUMAN | 601113009F1 NIH_MGC_16 Homo sapiens cDNA clone IMAGE:3353378 5' |

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Table 4
Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 12084 | 25064 | 38770 | 2.85 | 0.0E+00 | BE545535.1 | EST_HUMAN | 601070391F1 NIH_MGC_12 Homo sapiens cDNA clone IMAGE:3456407 5' |
| 12087 | 25067 | 38773 | 1.34 | 0.0E+00 | AA399001.1 | EST_HUMAN | zt93e01.r1 Soares_testis_NHT Homo sapiens cDNA clone IMAGE:729912 5' similar to SW:PMT1_SCHPO P40999 DNA METHYLTRANSFERASE PMT1 ; |
| 12088 | 25068 | 38774 | 1.55 | 0.0E+00 | AU117974.1 | EST_HUMAN | AU117974 HEMBA1 Homo sapiens cDNA clone HEMBA1002612 5' |
| 12088 | 25068 | 38775 | 1.55 | 0.0E+00 | AU117974.1 | EST_HUMAN | AU117974 HEMBA1 Homo sapiens cDNA clone HEMBA1002612 5' |
| 12091 | 25071 | 38778 | 1.72 | 0.0E+00 | BE780453.1 | EST_HUMAN | 601468712F1 NIH_MGC_67 Homo sapiens cDNA clone IMAGE:3871899 5' |
| 12108 | 25088 | 38792 | 2.15 | 0.0E+00 | AW269990.1 | EST_HUMAN | xv46h03.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2816213 3' similar to gb:L11706_cds1 HORMONE SENSITIVE LIPASE (HUMAN); |
| 12118 | 25098 | 38803 | 1.99 | 0.0E+00 | AU132394.1 | EST_HUMAN | AU132394 NT2RP3 Homo sapiens cDNA clone NT2RP3004339 5' |
| 12131 | 25111 | 38815 | 1.35 | 0.0E+00 | BE292840.1 | EST_HUMAN | 601105652F1 NIH_MGC_15 Homo sapiens cDNA clone IMAGE:2988325 5' |
| 12147 | 26185 | 31540 | 9.34 | 0.0E+00 | BE312542.1 | EST_HUMAN | 601150023F1 NIH_MGC_19 Homo sapiens cDNA clone IMAGE:3503020 5' |
| 12160 | 26005 | | 3.02 | 0.0E+00 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 12162 | 26013 | | 5.49 | 0.0E+00 | AI190993.1 | EST_HUMAN | qe17b12.x1 Soares_fetal_lung_NbHL19W Homo sapiens cDNA clone IMAGE:1739231 3' |
| 12172 | 25134 | | 3.73 | 0.0E+00 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 12192 | 25149 | | 6.87 | 0.0E+00 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 12194 | 25151 | | 1.35 | 0.0E+00 | AB016195.1 | NT | Homo sapiens ELK1 pseudogene (ELK2) and immunoglobulin heavy chain gamma pseudogene (IGHGP) |
| 12201 | 25166 | | 3.2 | 0.0E+00 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 12220 | 25170 | | 4.95 | 0.0E+00 | 5802973 | NT | Homo sapiens antioxidant protein 1 (AOP1), nuclear gene encoding mitochondrial protein, mRNA |
| 12254 | 25973 | 31767 | 1.47 | 0.0E+00 | AF240786.1 | NT | Homo sapiens glutathione S-transferase theta 2 (GSTT2) and glutathione S-transferase theta 1 (GSTT1) genes, complete cds |
| 12267 | 25983 | | 3.47 | 0.0E+00 | AL041931.1 | EST_HUMAN | DKFZp434K0819_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434K0819 5' |
| 12295 | 26146 | | 3.39 | 0.0E+00 | 11418318 | NT | Homo sapiens G-2 and S-phase expressed 1 (GTSE1), mRNA |
| 12304 | 25222 | | 4.77 | 0.0E+00 | AL046544.1 | EST_HUMAN | DKFZp434G218_r1 434 (synonym: htes3) Homo sapiens cDNA clone DKFZp434G218 5' |
| 12317 | 26017 | | 2.92 | 0.0E+00 | AI903497.1 | EST_HUMAN | IL-BT030-271098-001 BT030 Homo sapiens cDNA |
| 12356 | 26172 | | 1.88 | 0.0E+00 | N54484.1 | EST_HUMAN | yv40e08.s1 Soares fetal liver spleen 1NFLS Homo sapiens cDNA clone IMAGE:245222 3' similar to SW:POL_BAEVM P10272 POL POLYPROTEIN ; |
| 12371 | 25265 | | 4.08 | 0.0E+00 | AF106656.1 | NT | Homo sapiens adenylosuccinate lyase gene, complete cds |
| 12374 | 14042 | 27106 | 5.36 | 0.0E+00 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 12374 | 14042 | 27107 | 5.36 | 0.0E+00 | 4507500 | NT | Homo sapiens T-cell lymphoma invasion and metastasis 1 (TIAM1) mRNA |
| 12383 | 26021 | | 3.07 | 0.0E+00 | 10092587 | NT | Homo sapiens nuclear factor of activated T-cells, cytoplasmic, calcineurin-dependent 2 (NFATC2), mRNA |
| 12415 | 13754 | | 4.88 | 0.0E+00 | AF003528.1 | NT | Homo sapiens X-linked anhidroitic ectodermal dysplasia protein gene (EDA), exon 2 and flanking repeat regions |

## Table 4

## Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 12450 | 25781 | 31937 | 3.95 | 0.0E+00 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 12510 | 25950 | 31765 | 1.64 | 0.0E+00 | AW590082.1 | EST_HUMAN | hg31e06.x1 NCI_CGAP_GC6 Homo sapiens cDNA clone IMAGE:2947234 3' similar to contains Alu repetitive element;contains element MER22 repetitive element ; |
| 12542 | 25982 | | 1.34 | 0.0E+00 | L20493.1 | NT | Human gamma-glutamyl transpeptidase mRNA, complete cds |
| 12573 | 26015 | | 2.73 | 0.0E+00 | AF068757.1 | NT | Homo sapiens somatostatin receptor subtype 3 (SSTR3) gene, 5' flanking region and partial cds |
| 12618 | 25416 | | 4.61 | 0.0E+00 | 9635487 | NT | Human endogenous retrovirus, complete genome |
| 12638 | 25429 | | 1.19 | 0.0E+00 | AV720678.1 | EST_HUMAN | AV720678 GLC Homo sapiens cDNA clone GLCEPG09 5' |
| 12660 | 26009 | | 3.51 | 0.0E+00 | AI204914.1 | EST_HUMAN | an05h04.x1 Stratagene schizo brain S11 Homo sapiens cDNA clone IMAGE:1684759 3' |
| 12694 | 25462 | | 1.33 | 0.0E+00 | AI904646.1 | EST_HUMAN | QV-BT065-020399-103 BT065 Homo sapiens cDNA |
| 12702 | 26006 | | 2.29 | 0.0E+00 | BE439792.1 | EST_HUMAN | HTM1-654F HTM1 Homo sapiens cDNA |
| 12714 | 15187 | 28297 | 1.39 | 0.0E+00 | 6912457 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 12714 | 15187 | 28298 | 1.39 | 0.0E+00 | 6912457 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |
| 12739 | 25490 | 32027 | 1.21 | 0.0E+00 | AF036365.1 | NT | Homo sapiens caveolin-3 (CAV3) mRNA, complete cds |
| 12751 | 14869 | 27960 | 3.26 | 0.0E+00 | H30132.1 | EST_HUMAN | yo59e08.r1 Soares breast 3NbHBst Homo sapiens cDNA clone IMAGE:182246 5' similar to gb:M64099 GAMMA-GLUTAMYLTRANSPEPTIDASE 5 PRECURSOR (HUMAN); |
| 12751 | 14869 | 27961 | 3.26 | 0.0E+00 | H30132.1 | EST_HUMAN | yo59e08.r1 Soares breast 3NbHBst Homo sapiens cDNA clone IMAGE:182246 5' similar to gb:M64099 GAMMA-GLUTAMYLTRANSPEPTIDASE 5 PRECURSOR (HUMAN); |
| 12755 | 13979 | 27031 | 1.6 | 0.0E+00 | AB011399.1 | NT | Homo sapiens gene for AF-6, complete cds |
| 12766 | 25509 | | 33.13 | 0.0E+00 | D50669.1 | NT | Human gamma-cytoplasmic actin (ACTGP9) pseudogene |
| 12771 | 25514 | 31997 | 5.44 | 0.0E+00 | 11418189 | NT | Homo sapiens thyroid autoantigen 70kD (Ku antigen) (G22P1), mRNA |
| 12771 | 25514 | 31998 | 5.44 | 0.0E+00 | 11418189 | NT | Homo sapiens thyroid autoantigen 70kD (Ku antigen) (G22P1), mRNA |
| 12776 | 25518 | | 7.88 | 0.0E+00 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 12798 | 15294 | 28420 | 1.7 | 0.0E+00 | 4758489 | NT | Homo sapiens GTP binding protein 1 (GTPBP1) mRNA |
| 12837 | 25557 | | 2.11 | 0.0E+00 | AW664999.1 | EST_HUMAN | hl86a06.x1 Soares_NFL_T_GBC_S1 Homo sapiens cDNA clone IMAGE:2979154 3' |
| 12847 | 25563 | 31988 | 1.43 | 0.0E+00 | 11430460 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 12892 | 14409 | 27471 | 1.74 | 0.0E+00 | 8922593 | NT | Homo sapiens hypothetical protein FLJ10697 (FLJ10697), mRNA |
| 12927 | 16558 | 29573 | 3.11 | 0.0E+00 | 4885312 | NT | Homo sapiens G protein-coupled receptor 24 (GPR24), mRNA |
| 12935 | 18494 | 31532 | 2.3 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 12936 | 25617 | | 1.88 | 0.0E+00 | AB029900.1 | NT | Homo sapiens CST gene for cerebroside sulfotransferase, exon 1, 2, 3, 4, 5 |
| 12981 | 25639 | 31983 | 1.82 | 0.0E+00 | 9558724 | NT | Homo sapiens cleavage and polyadenylation specific factor 1, 160kD subunit (CPSF1), mRNA |
| 13010 | 26197 | | 2.93 | 0.0E+00 | AL163246.2 | NT | Homo sapiens chromosome 21 segment HS21C046 |
| 13017 | 13828 | 26851 | 2.46 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 13113 | 25726 | 31943 | 1.17 | 0.0E+00 | 11417862 | NT | Homo sapiens calcineurin binding protein 1 (KIAA0330), mRNA |

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Table 4

Single Exon Probes Expressed in Placenta

| Probe SEQ ID NO: | Exon SEQ ID NO: | ORF SEQ ID NO: | Expression Signal | Most Similar (Top) Hit BLAST E Value | Top Hit Acession No. | Top Hit Database Source | Top Hit Descriptor |
|---|---|---|---|---|---|---|---|
| 13116 | 25728 | | 1.4 | 0.0E+00 | AB002059.1 | NT | Homo sapiens DNA for Human P2XM, complete cds |
| 13119 | 25731 | | 3.11 | 0.0E+00 | 7657020 | NT | Homo sapiens DKFZp434P211 protein (DKFZP434P211), mRNA |
| 13140 | 25740 | | 5.96 | 0.0E+00 | AB026898.1 | NT | Homo sapiens DNA, DLEC1 to ORCTL4 gene region, section 1/2 (DLEC1, ORCTL3, ORCTL4 genes, complete cds) |
| 13151 | 26207 | | 1.16 | 0.0E+00 | AW505176.1 | EST_HUMAN | UI-HF-BN0-aly-g-08-0-UI.r1 NIH_MGC_50 Homo sapiens cDNA clone IMAGE:3081399 5' |
| 13190 | 25774 | | 1.51 | 0.0E+00 | X57147.1 | NT | Human endogenous retrovirus pHE.1 (ERV9) |
| 13209 | 16135 | 29151 | 1.37 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 13209 | 16135 | 29152 | 1.37 | 0.0E+00 | 6806918 | NT | Homo sapiens low density lipoprotein-related protein 2 (LRP2), mRNA |
| 13215 | 14345 | 27402 | 1.29 | 0.0E+00 | 9966844 | NT | Homo sapiens chromosome 12 open reading frame 3 (C12ORF3), mRNA |

CLAIMS

1. A spatially-addressable set of single exon nucleic acid probes for measuring gene expression in a sample derived from human placenta comprising a plurality single exon nucleic probes, said probes comprising any one of the nucleotide sequences set out in SEQ ID NOs: 1 - 13,232 or a complementary sequence, or a portion of such a sequence.

2. A spatially-addressable set of single exon nucleic acid probes as claimed in claim 1 wherein each of said plurality of probes is separately and addressably amplifiable.

3. A spatially-addressable set of single exon nucleic acid probes as claimed in claim 1 wherein each of said plurality of probes is separately and addressably isolatable from said plurality.

4. A spatially-addressable set of single exon nucleic acid probes as claimed in any of claims 1 to 3 wherein said probes comprise any one of the nucleotide sequences set out in SEQ ID NOS.: 13,233 - 26,232.

5. A spatially-addressable set of single exon nucleic acid probes as claimed in any of claims 1 to 4, wherein each of said plurality of probes is amplifiable using at least one common primer.

6. A spatially-addressable set of single exon nucleic acid probes as claimed in any of claims 1 to 5 wherein the set comprises between 50 - 20,000 single exon nucleic acid probes.

7. A spatially-addressable set of single exon nucleic acid probes as claimed in any of claims 1 to 6, wherein the

average length of the single exon nucleic acid probes is between 200 and 500 bp.

8. A spatially-addressable set of single exon nucleic acid probes as claimed in any of claims 1 to 7, wherein at least 50% of said single exon nucleic acid probes lack prokaryotic and bacteriophage vector sequence.

9. A spatially-addressable set of single exon nucleic acid probes as claimed in any of claims 1 to 8, wherein at least 50% of said single exon nucleic acid probes lack homopolymeric stretches of A or T.

10. A spatially-addressable set of single exon nucleic acid probes as claimed in any of claims 1 - 9 characterised in that said set of probes is addressably disposed upon a substrate.

11. A spatially-addressable set of single exon nucleic acid probes as claimed in claim 10 wherein said substrate is selected from glass, amorphous silicon, crystalline silicon and plastic.

12. A microarray comprising a spatially addressable set of single exon nucleic acid probes as claimed in any of claims 1 - 11.

13. A single exon nucleic acid probe for measuring human gene expression in a sample derived from human placenta comprising a nucleotide sequence as set out in any of SEQ ID NOs.: 1 - 13,232 or a complementary sequence or a fragment thereof wherein said probe hybridizes at high stringency to a nucleic acid molecule expressed in the human placenta.

14. A single exon nucleic acid probe as claimed in claim 13 comprising a nucleotide sequence as set out in any of SEQ ID NOs.: 13,233 - 26,232 or a complementary sequence or a fragment thereof.

15. A single exon nucleic acid probe for measuring human gene expression in a sample derived from human placenta which is a nucleic acid molecule having a sequence encoding a peptide comprising a peptide sequence as set out in any of SEQ ID NOs.: 26,233 - 38,837, or a complementary sequence or a fragment thereof wherein said probe hybridizes at high stringency to a nucleic acid expressed in the human placenta.

16. A single exon nucleic acid probe as claimed in any one of claims 13 to 15 wherein said single exon nucleic acid probe comprises between 15 and 25 contiguous nucleotides of said SEQ ID NO.

17. A single exon nucleic acid probe as claimed in any one of claims 13 to 15, wherein said probe is between 3 - 25 kb in length.

18. A single exon nucleic acid probe as claimed in any one of claims 13 - 17, wherein said probe is DNA, RNA or PNA.

19. A single exon nucleic acid probe as claimed in any one of claims 13 - 18, wherein said probe is detectably labeled.

20. A single exon nucleic acid probe as claimed in any one of claims 13 – 19, wherein said probe lacks prokaryotic and bacteriophage vector sequence.

21. A single exon nucleic acid probe as claimed in any one

of claims 13 - 20, wherein said probe lacks homopolymeric stretches of A or T.

22. A method of measuring gene expression in a sample derived from human placenta, comprising:

contacting the microarray of claim 12, with a first collection of detectably labeled nucleic acids, said first collection of nucleic acids derived from mRNA of human placenta; and then

measuring the label detectably bound to each probe of said microarray.

23. A method of identifying exons in a eukaryotic genome, comprising:

algorithmically predicting at least one exon from genomic sequence of said eukaryote; and then

detecting specific hybridization of detectably labeled nucleic acids to a single exon probe,

wherein said detectably labeled nucleic acids are derived from mRNA from the placenta of said eukaryote, said probe is a single exon probe having a fragment identical in sequence to, or complementary in sequence to, said predicted exon, said probe is included within a microarray according to claim 12, and said fragment is selectively hybridizable at high stringency.

24. A method of assigning exons to a single gene, comprising:

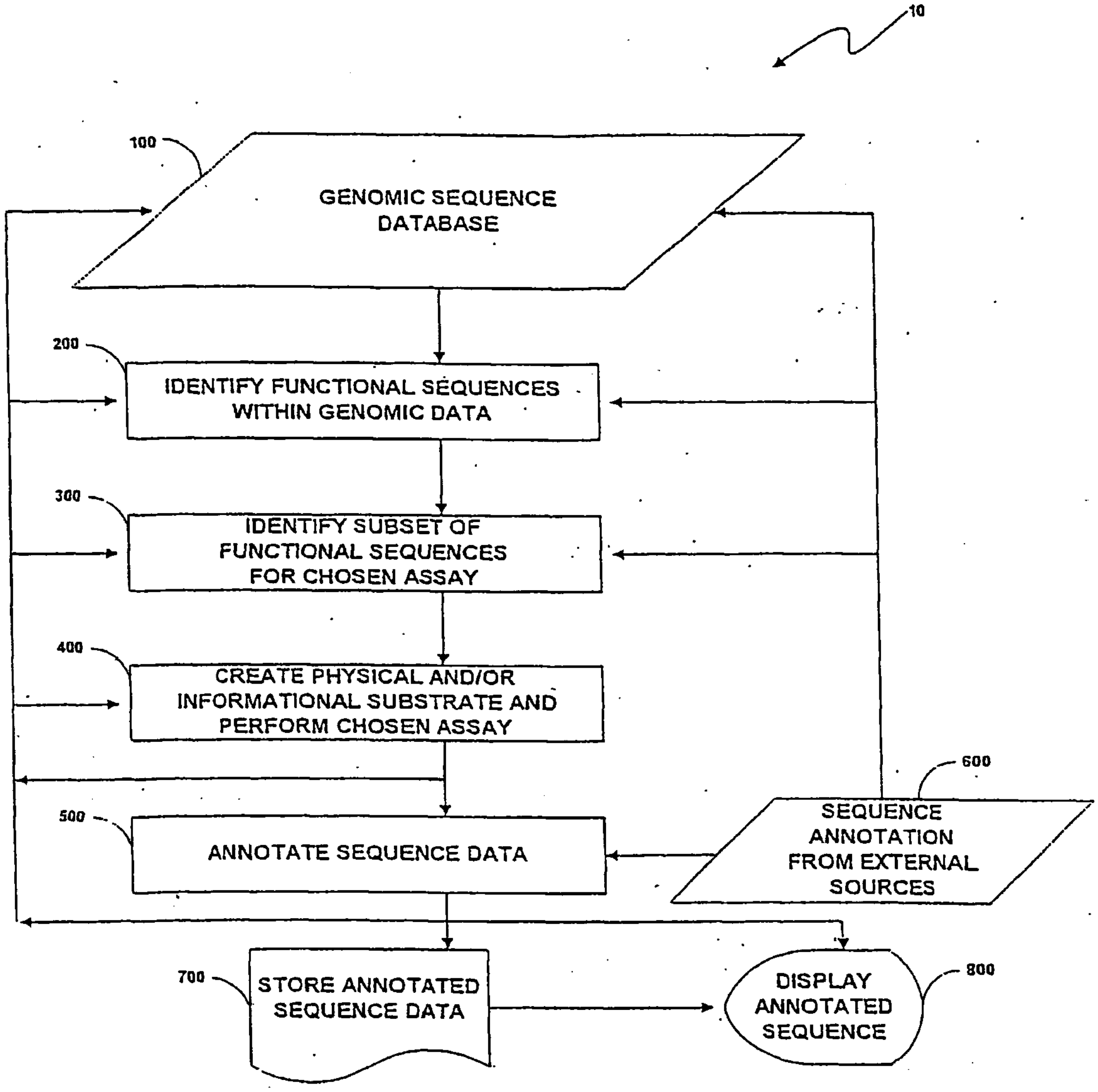
identifying a plurality of exons from genomic sequence according to the method of claim 23; and then

measuring the expression of each of said exons in a plurality of tissues and/or cell types using hybridization to single exon microarrays having a probe with said exon, wherein a common pattern of expression of said exons in said plurality of tissues and/or cell types indicates that the exons should be assigned to a single gene.

25. A nucleic acid sequence as set out in any of SEQ ID NOs: 1 - 26,232 which encodes a peptide.

26. A peptide encoded by a sequence as set out in any of SEQ ID Nos: 1 - 26,232.

27. A peptide comprising a sequence as set out in any of SEQ ID Nos: 26,233 - 38,837.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200
IDENTIFY FUNCTIONAL SEQUENCES WITHIN GENOMIC DATA
300
IDENTIFY SUBSET OF FUNCTIONAL SEQUENCES FOR CHOSEN ASSAY
400
CREATE PHYSICAL AND/OR INFORMATIONAL SUBSTRATE AND PERFORM CHOSEN ASSAY
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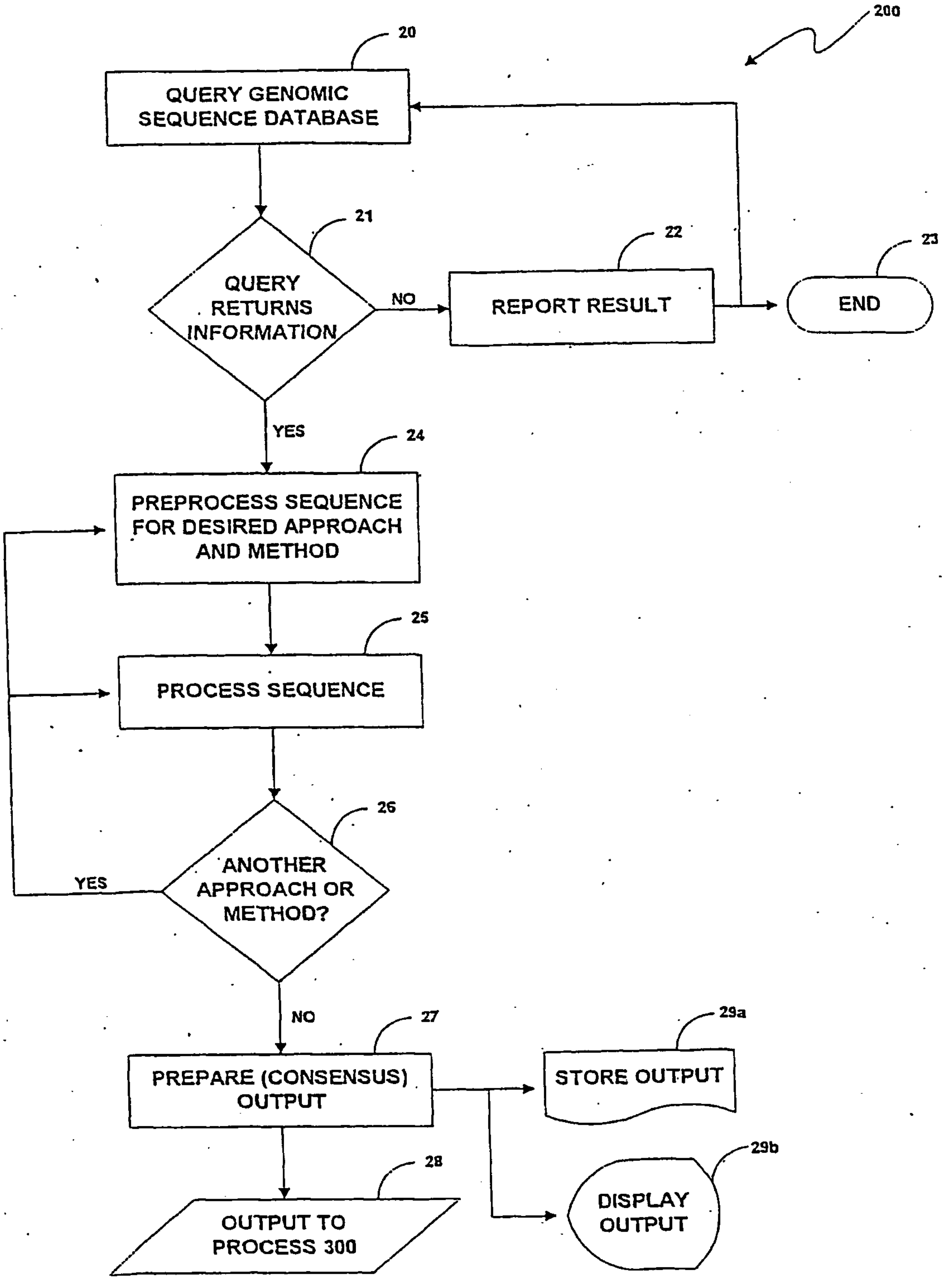
ANNOTATE SEQUENCE DATA
600
SEQUENCE ANNOTATION FROM EXTERNAL SOURCES
700
STORE ANNOTATED SEQUENCE DATA
800
DISPLAY ANNOTATED SEQUENCE

Fig. 1


200
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QUERY GENOMIC SEQUENCE DATABASE
21
QUERY RETURNS INFORMATION
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22
REPORT RESULT
23
END
YES
24
PREPROCESS SEQUENCE FOR DESIRED APPROACH AND METHOD
25
PROCESS SEQUENCE
26
ANOTHER APPROACH OR METHOD?
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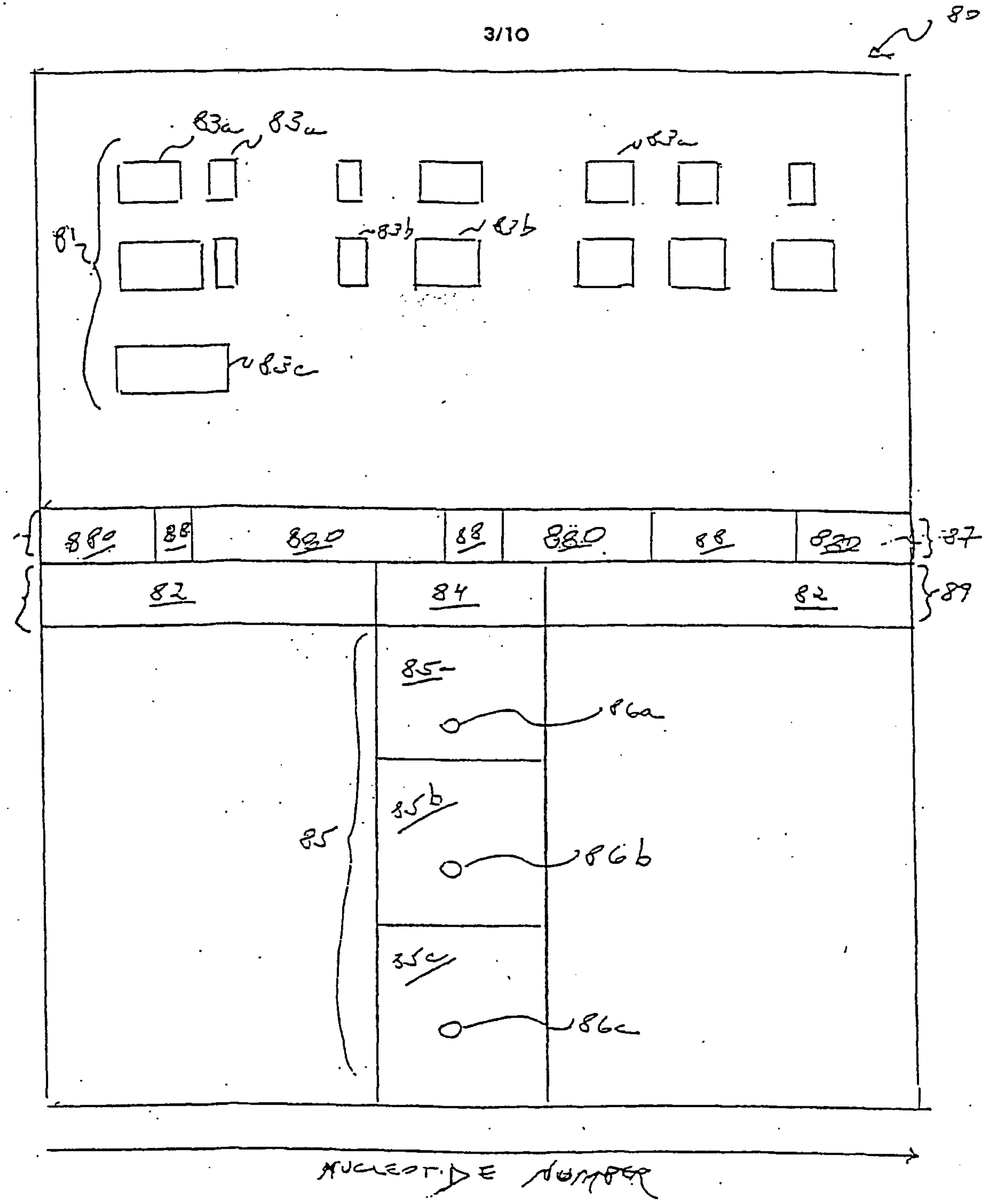
NO
27
PREPARE (CONSENSUS) OUTPUT
29a
STORE OUTPUT
29b
DISPLAY OUTPUT
28
OUTPUT TO PROCESS 300

Fig. 2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85a
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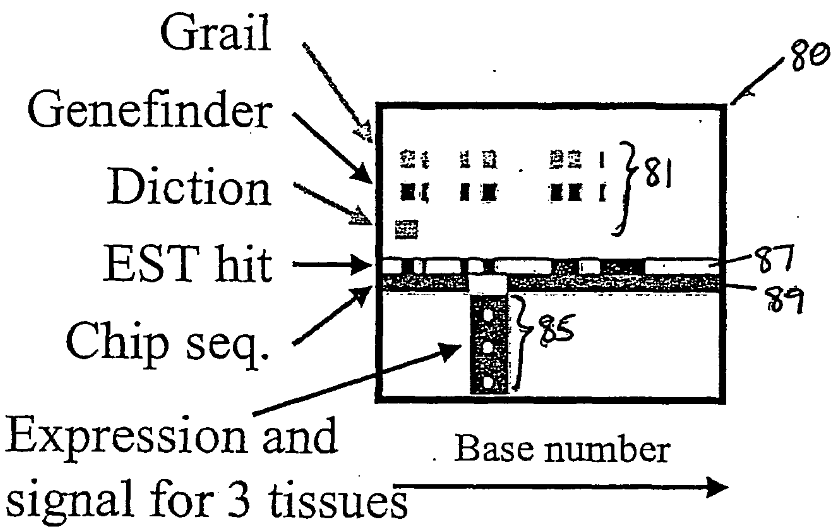
85b
86b
85c
86c
85
NUCLEOTIDE NUMBER

Fig. 3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Genefinder
Diction
EST hit
Chip seq.
Expression and signal for 3 tissues
Base number
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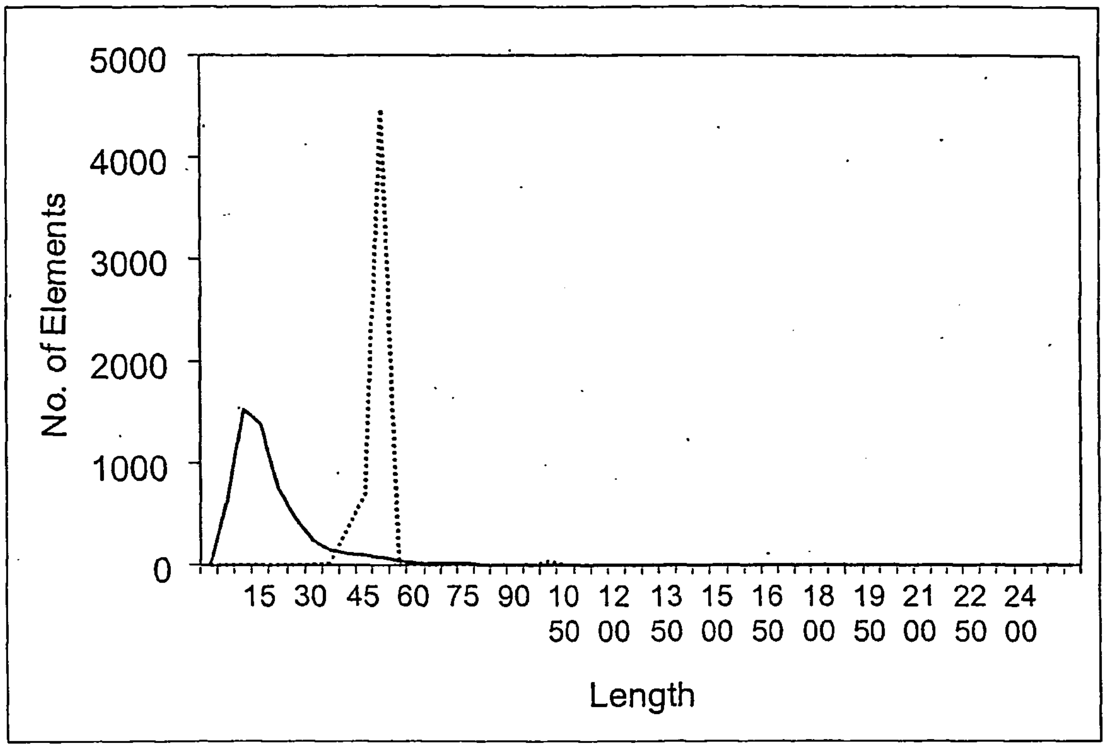
81
87
89
85

Fig. 4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2000
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No. of Elements
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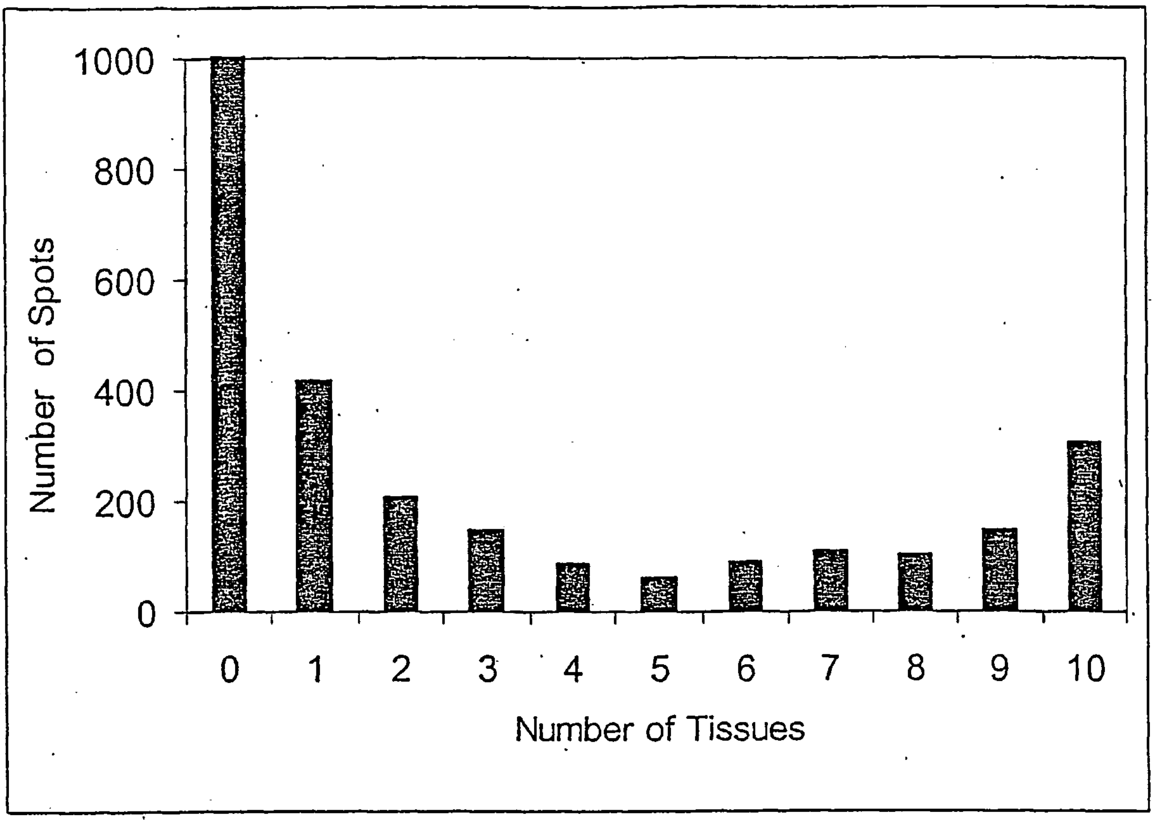
21 00
22 50
24 00
Length

Fig. 5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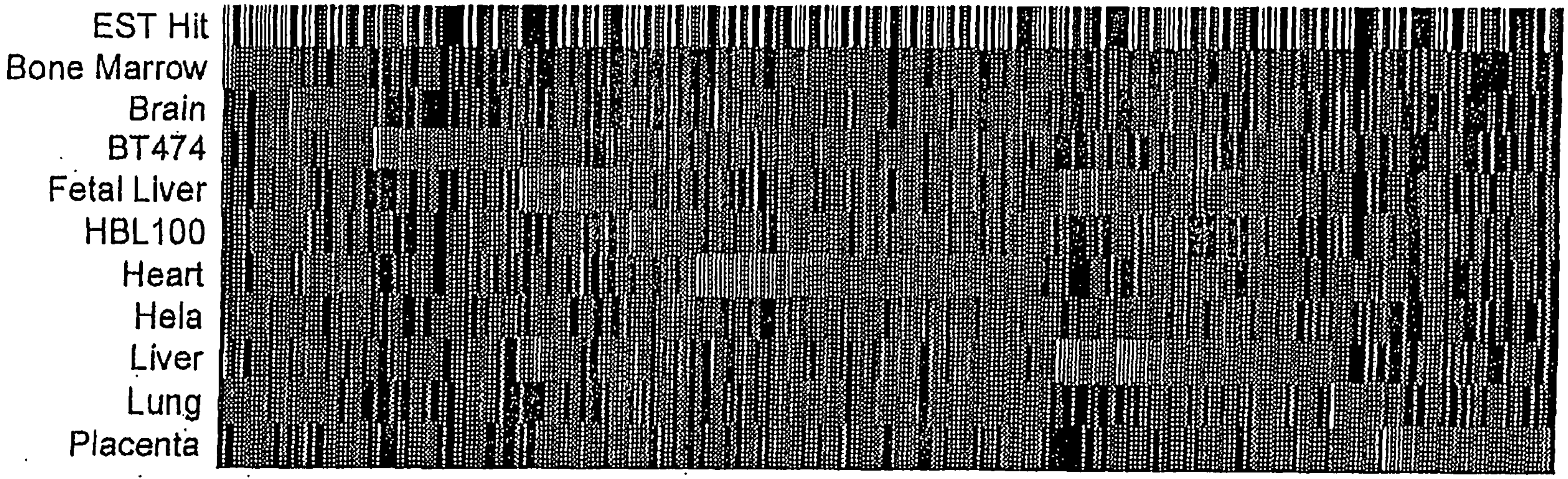
3
4
5
6
7
8
9
10
Number of Tissues

Fig. 6

**Fig. 7a**



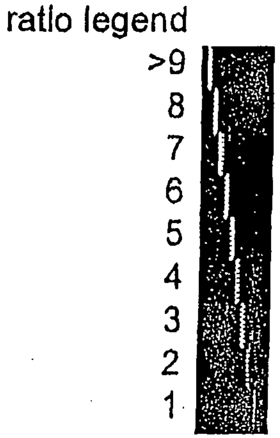


**Fig. 7b**

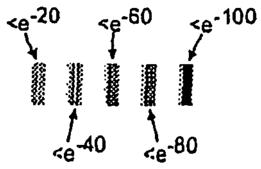
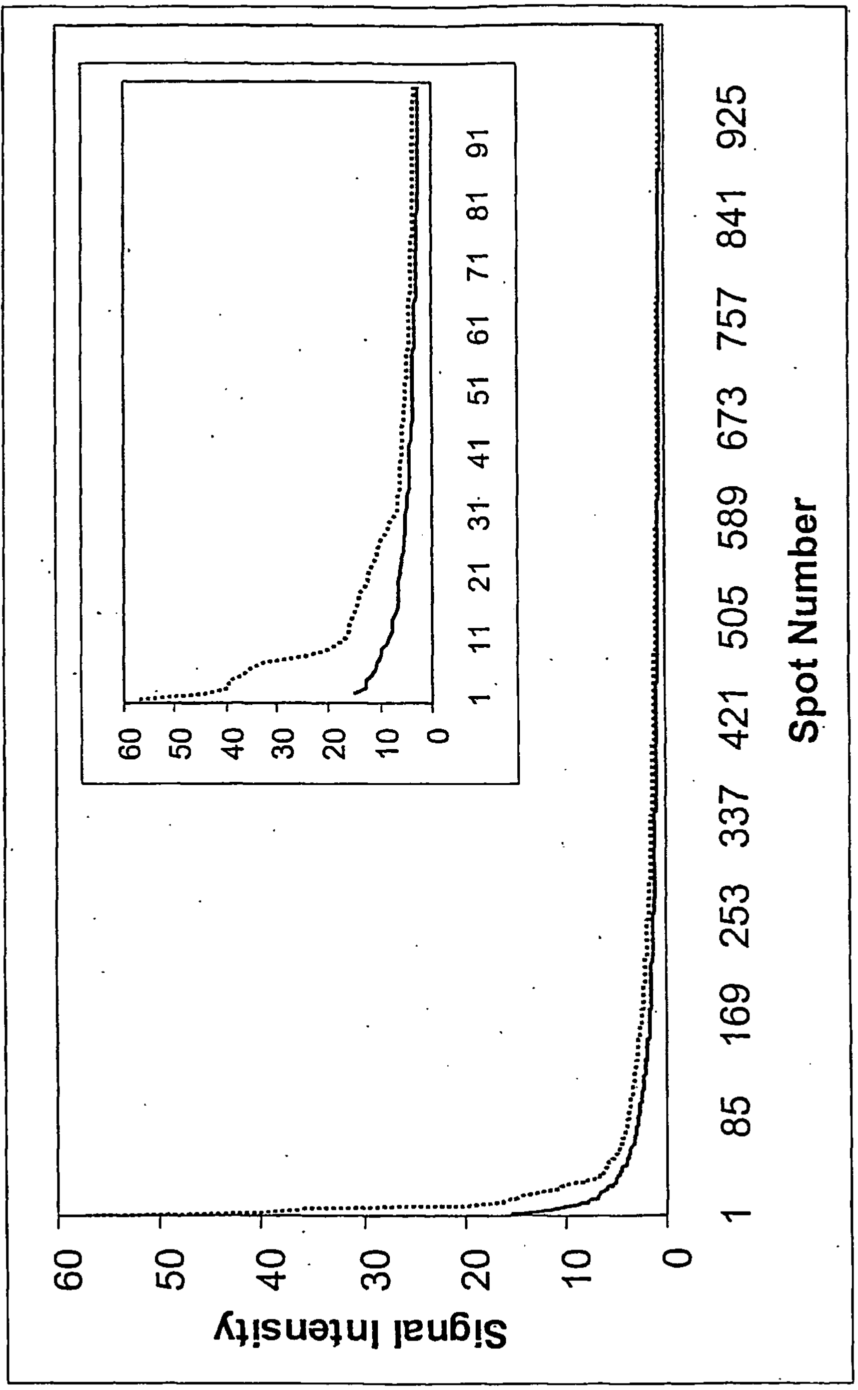


**Fig. 7c**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1
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505
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Spot Number
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61
71
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91

Fig. 8

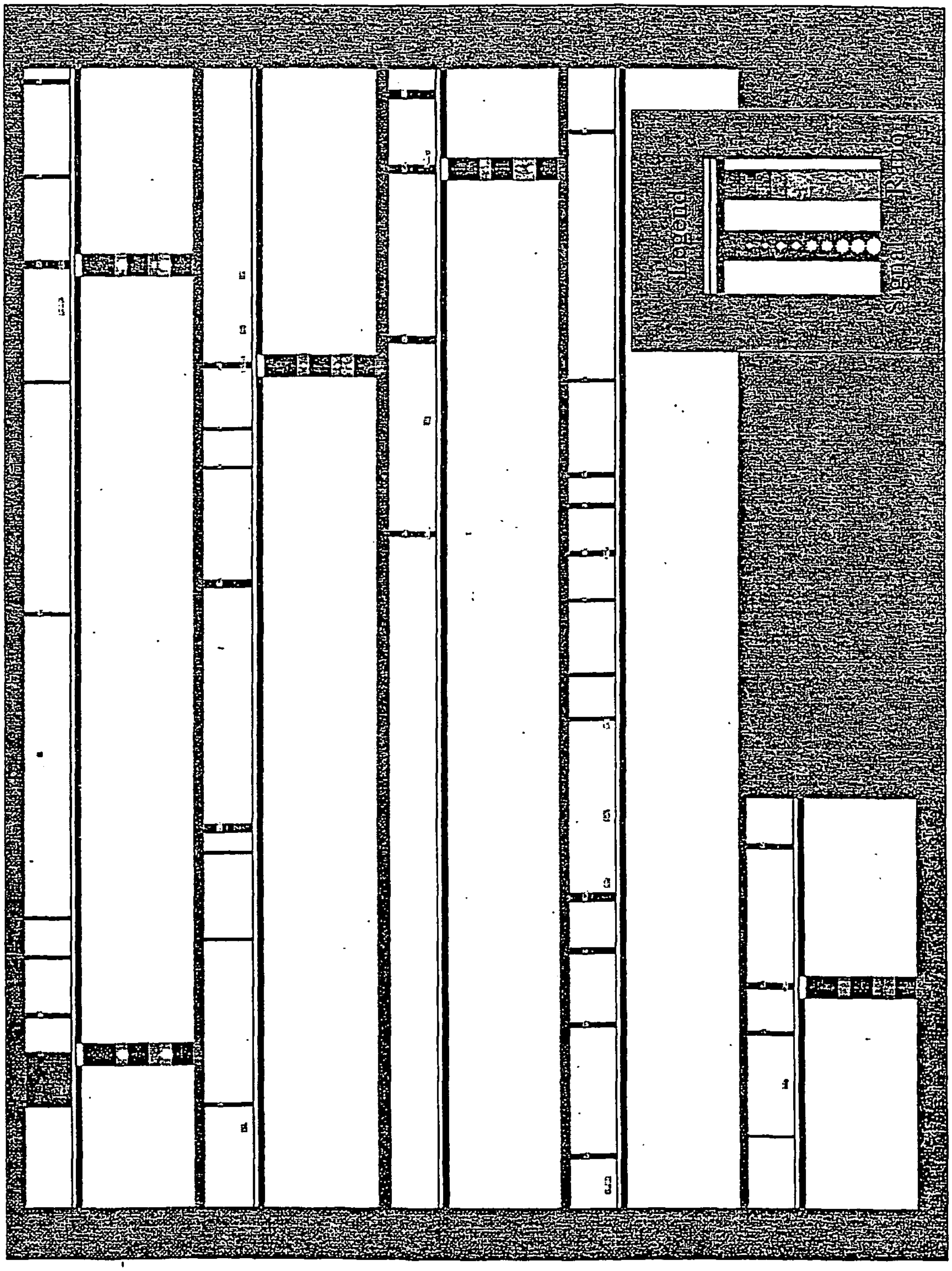

Fig. 9

Fig. 10